

SailTokyo - Quick Tour 1

Getting started

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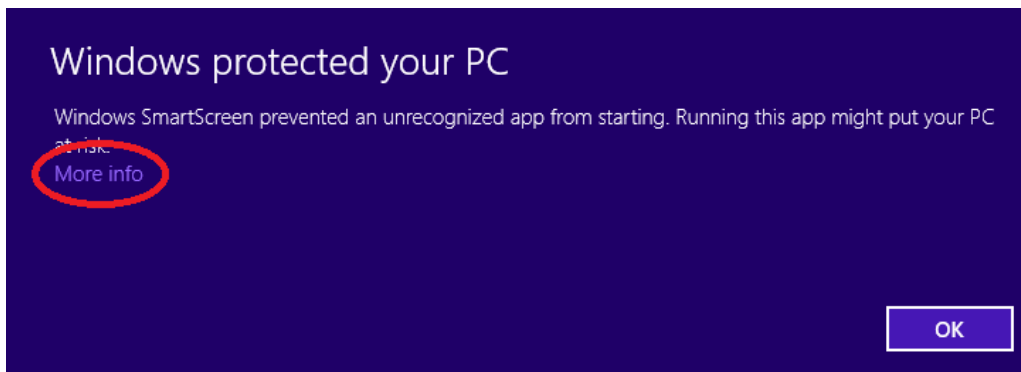
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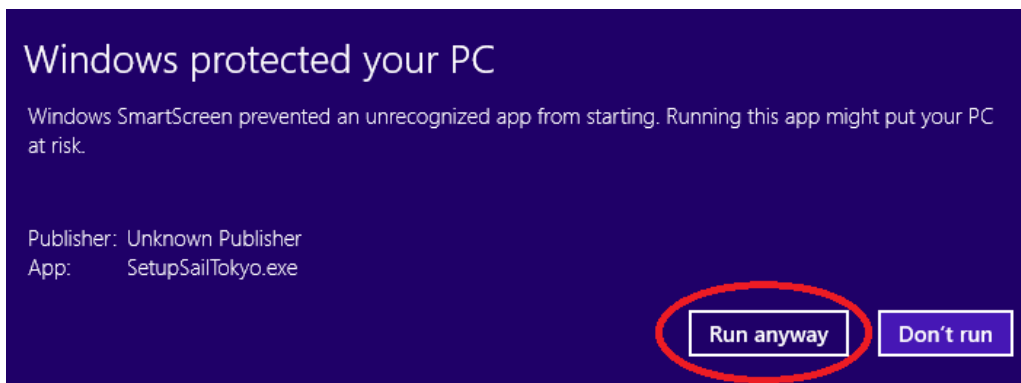
1 Install SailTokyo

- Get installer [SetupSailTokyo.exe](#) (Send mail to info@buell-software.com)
- Copy installer onto your computer (C:\Temp...)
- Run installer

If installing on Windows 10 with active UAP the following screen interrupts installation procedure:

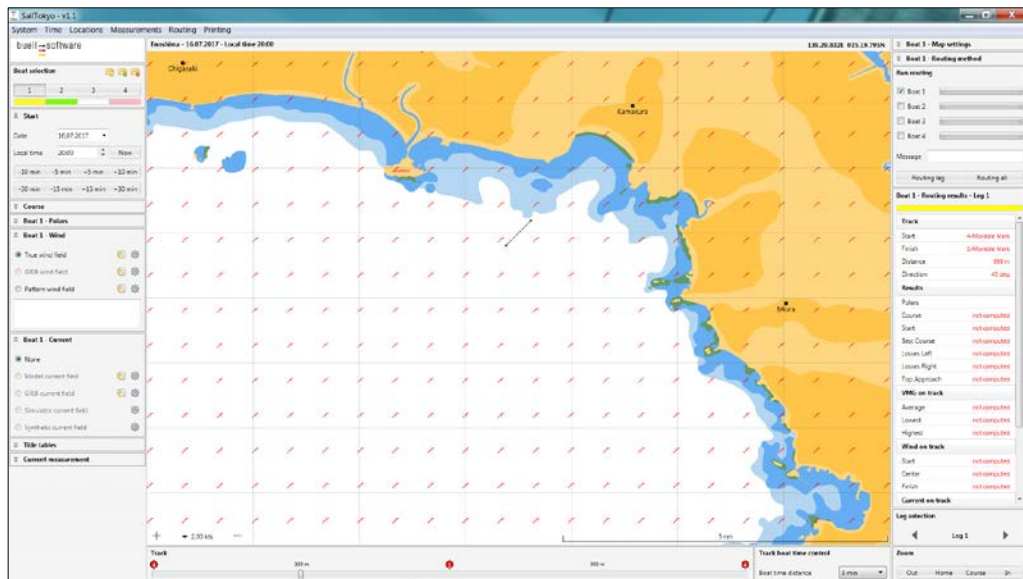


Click onto More info and press Run anyway:



2 Start application SailTokyo

- Find icon on your desktop
- Click onto icon and start program SailTokyo:



Screen after first start of SailTokyo

3 Screen layout

The screen is organized in three panels:

- Left panel: “All you can put into the water”
- Middle: Map area
- Right panel: Routing and analysis

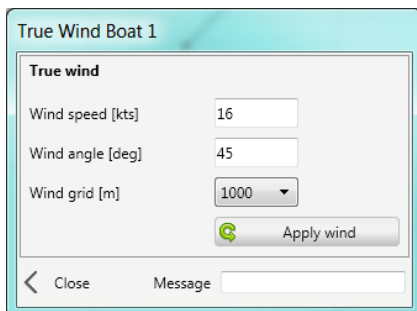
Note that left panel supports up to 4 boats (identified by different colors). All data of left panel is linked to the selected boat.

Data displayed in the map area is also linked to the selected boat (except routing results).

4 Setup wind



- Click onto small gear wheel to open true wind setup dialog.
- Note that all gear wheels open additional dialogs.

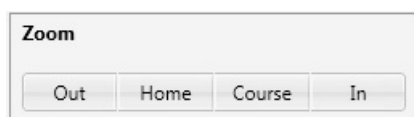


- Enter wind data.
- Press **Apply wind**.



- Click onto small folder to copy selected wind settings to all boats.
- Note that small folders beside gear wheels always copy data of selected boat to all other boats.
- Now the 4 boats do have the same true wind settings.

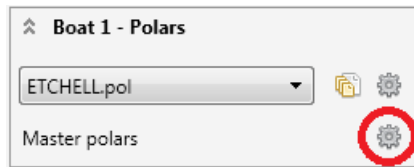
5 Zoom to course



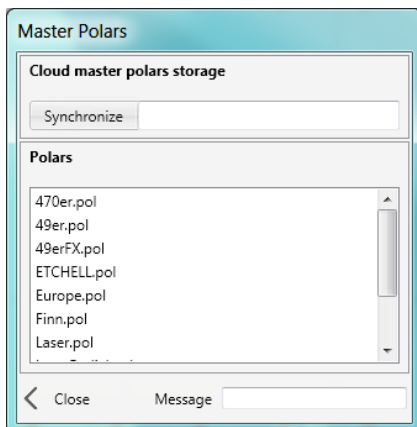
- Find zoom options **bottom right** on screen.
- Click **Course** to zoom to course.

6 Setup boats

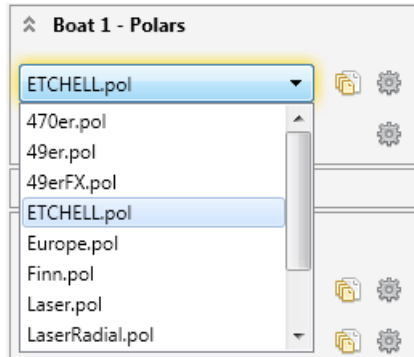
SailTokyo supports some boat polars. These polars may be modified and stored in team data area later. Before usage polars have to be downloaded from master data storage.



- Open expander **Boat 1 - Polars**.
- Click onto **gear wheel** right of master polars.



- Now **Master Polars** dialog opens.
- Click onto **Synchronize** to download master polars.
- See available polars in list.
- **Close** form.



- Back in main screen open list of polars and select boat.
- See name of selected boat polars in selection box header.
- Copy polars to all other boats by clicking small folder.

7 First routing

After setup wind and boat *SailTokyo* is ready for very simple routing now. Look onto the right panel expander **Run routing**:

Run routing

Boat 1

Boat 2

Boat 3

Boat 4

Message

- Select boat 1 for routing.
- Click **Routing leg**.

Boat 1 - Routing results - Leg 1

Track

Start	4-Movable Mark
Finish	1-Movable Mark
Distance	999 m
Direction	45 deg

Results

Polars	Laser.pol
Course	Beat
Start	09:00:00 h:m:s
Best Course	00:08:48 h:m:s
Losses Left	00:00:00 h:m:s
Losses Right	00:00:00 h:m:s
Top Approach	87 deg

VMG on track

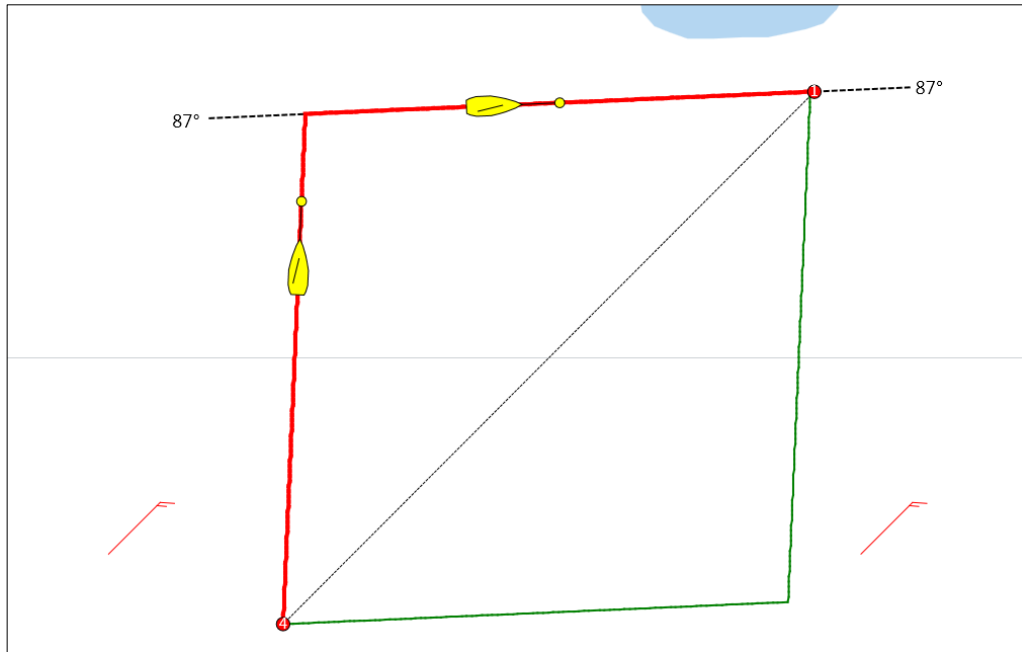
Average	3,7 kts
Lowest	3,7 kts
Highest	3,7 kts

Wind on track

Start	16,0 kts 45 deg
Center	16,0 kts 45 deg
Finish	16,0 kts 45 deg

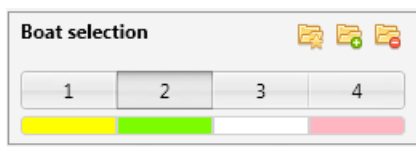
Current on track

- See routing results for boat 1.
- Boat 1 sails upwind from mark 4 to mark 1.
- Note that **red line** is the fastest course to windward mark.
- Small boats on course display attack angles (in currents) and position after a defined time (here 3 min).
- Green lines are laylines.
- Angle (87 deg) is compass course of final tack.

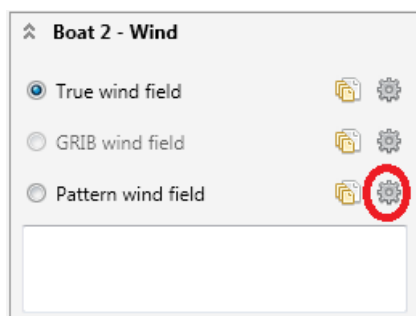


8 Wind pattern

Now boat 2 gets a wind pattern to compare pattern against true wind of boat 1.



- Select boat 2 in expander **Boat selection**.
- Note different colour of boats.



- Click onto gear wheel Pattern wind field to **open dialog** for editing wind patterns.

Each wind pattern consists of one or more wind events (Like shifts or speed changes). To keep it simple add a single 30 deg right shift to the pattern. Look at the **wind event definition** expander:

Wind event definition

Begin at local time [hh:mm:ss] 12:00:00
 Begin after start routing [hh:mm:ss] 00:00:00
 Length of event [hh:mm:ss] 00:10:00

Linear events | Periodic events

Wind speed [kts] 0
 Wind angle [deg] +30

- Click on **Begin after start routing** to activate pattern just at start time.
- Give pattern a time length of 10 minutes to build up.
- Set wind angle to +30 deg.

List events of wind pattern

Timebase	Begin	Length	Period	Speed	Angle
Routing	00:00:00	00:10:00		0	+30

Add Delete

- Press **Add** in List events of wind patterns expander and see event in list.

Available wind patterns

MYPATTERN_IBB

Name MYPATTERN IBB
 Load Save New Delete

- Give pattern an name (MYPATTERN) and press **Save**.
- See pattern in list.

Handle wind pattern

Apply wind Clear wind

- Press **Apply wind** and **Close** dialog.

Boat 1 and 2 do have different wind situations during beat course now. Next step will be routing of 2 boats simultaneously.

Run routing

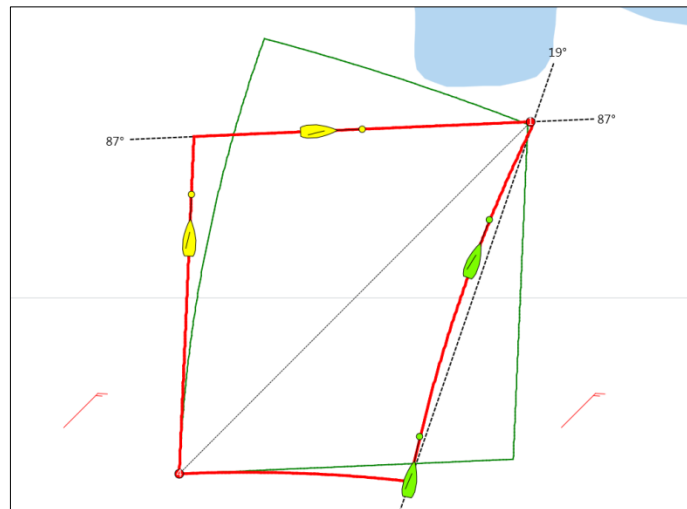
Boat 1
 Boat 2
 Boat 3
 Boat 4

Message

Routing leg Routing all

- Select boat 1 and 2 for routing.
- Click **Routing leg**.
- Note that list of **Routing results** is linked to selected boat.
- Selecting boat 1 lists results of boat 1.

The graph shows routing results leg 1 of both boats identified by their colors. Boat 2 (Green) sails into the upcoming wind shift and benefits from right side of course.



Compare track data of both boats. Open results form (Main menu **Routing-> Results**):

Routing Results		
	Boat 1	Boat 2
Polars	Laser	Laser
Course	Beat	Beat
Start	09:00:00 h:ms	09:00:00 h:ms
Best course	00:08:48 h:ms	00:08:00 h:ms
Losses layline left	00:00:00 h:ms	00:01:32 h:ms
Losses layline right	00:00:00 h:ms	00:00:00 h:ms
Top approach	87 deg	19 deg
VMG average	3,7 kts	4,1 kts
VMG lowest	3,7 kts	3,1 kts
VMG highest	3,7 kts	4,7 kts
Wind start	16,0 kts 45 deg	16,0 kts 45 deg
Wind center	16,0 kts 45 deg	16,0 kts 57 deg
Wind finish	16,0 kts 45 deg	16,0 kts 69 deg
Current start	not computed	not computed
Current center	not computed	not computed
Current finish	not computed	not computed
Current windshift start	0 deg	0 deg

- Sailing in the right shift on the right side boat 2 is 48 seconds faster than boat 1.
- Boat 2 would lose 1 minute 32 seconds if sailing on the left layline.

9 Import measured current

As simple example for sailing in currents we import a data file containing measured data (Synthetic) from Enoshima.

Find folder **Documents\SailTokyo\ImportCurrent** on your computer.

Copy file **Enoshima19062017.txt** (Request file at info@buell-software.com) into that folder.

Go to main menu **Measurements -> Import Data** and open dialog Import Measurements. The import tool needs to know which data in which format comes

into which column. Look carefully into the data file and setup data order and format as shown here:

Data order and format

Separator: Blank

Date GMT: Col 1, dd.mm.yyyy

Time GMT: Col 2, hh:mm

Latitude: Col 6, [NS]dd:mm.mmm[NS]

Longitude: Col 5, [WE]ddd:mm.mmm[WE]

Speed: Col 3, m/min

Direction: Col 4, deg floation to

- Import any current data as text file containing data in single rows using common formats.

Available files

Enoshima19062017.txt

Name: Enoshima19062017.txt

Preview data (circled in red) | Import data

- Select file and click **Preview data**.

Import data

Date	Time	Kts	Deg	Latitude	Longitude	Region
21.06.2017	10:20	1.1	050	035.16.500N	139.32.000E	Enoshima
21.06.2017	10:10	1.5	020	035.16.500N	139.31.000E	Enoshima
21.06.2017	10:00	1.8	010	035.16.500N	139.30.000E	Enoshima
20.06.2017	10:20	1.1	040	035.17.000N	139.32.000E	Enoshima
20.06.2017	10:10	1.5	010	035.17.000N	139.31.000E	Enoshima
20.06.2017	10:00	1.8	000	035.17.000N	139.30.000E	Enoshima
19.06.2017	10:20	0.8	010	035.17.500N	139.32.000E	Enoshima
19.06.2017	10:10	1.1	340	035.17.500N	139.31.000E	Enoshima
19.06.2017	10:00	1.5	330	035.17.500N	139.30.000E	Enoshima

- Check data in preview list.

Available files

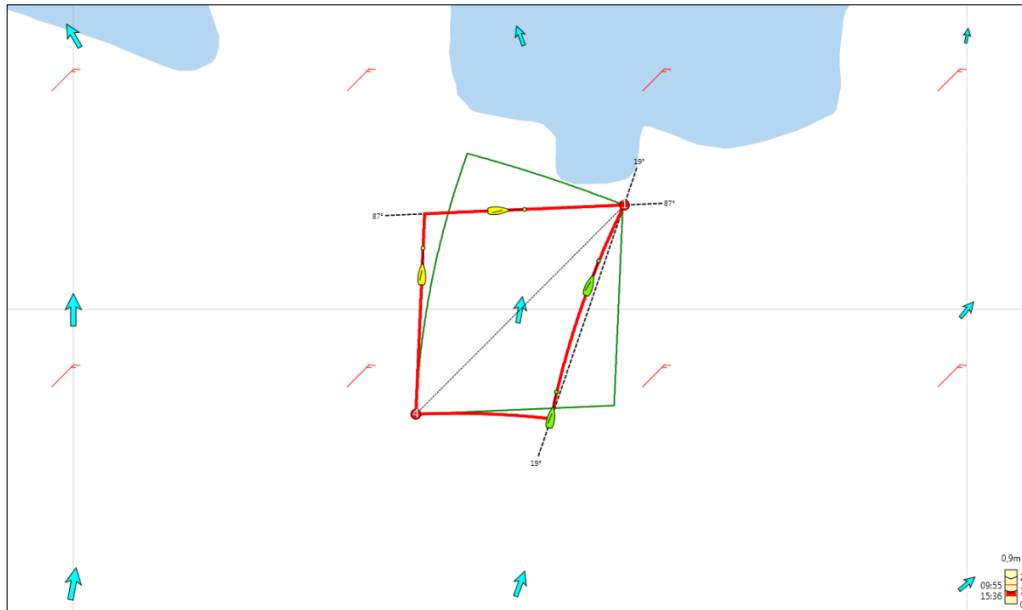
Enoshima19062017.txt

Name: Enoshima19062017.txt

Preview data | Import data (circled in red)

- Finally import data.

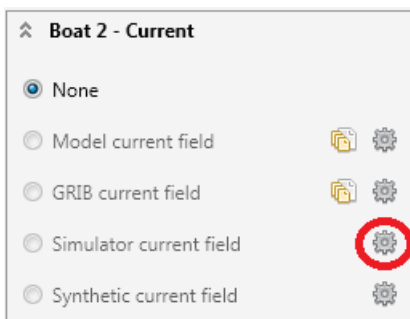
Zoom out to see 9 positions with measured current data (cyan arrows):



10 Current field simulator

SailTokyo supports interpolation of current fields using measured currents. Powerful data filtering enables various perspectives on measured data (Tutorial coming soon).

As simple example we use the 9 measured data points for a field simulation.



- Go to left panel and click onto gear wheel of **Simulator current field**.
- Open dialog **Currents simulator**.

Currents Simulator Boat 2

Preview simulator data

Date	All days
Time	All times
Time spread	
Count of data	9
Mean current	1,2 kts 9 deg
Simulation data	not applied

Handle simulator data

Show numeric currents

Show measured currents

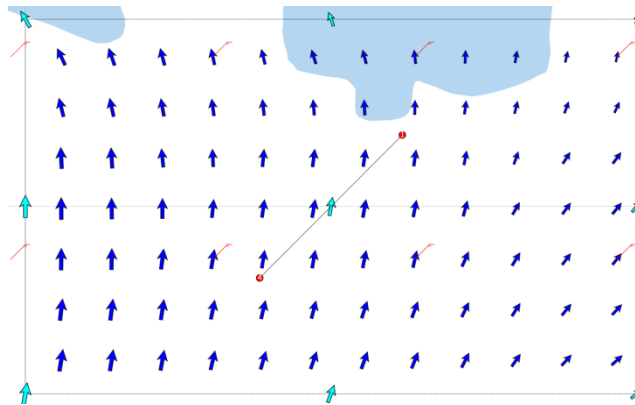
Show hull around currents

Currents grid [m]

Message

- Just click **Apply current** and close dialog.

Interpolated current field:



For analysis of sailing in current we do the routing for boat 2 only:

Run routing

Boat 1

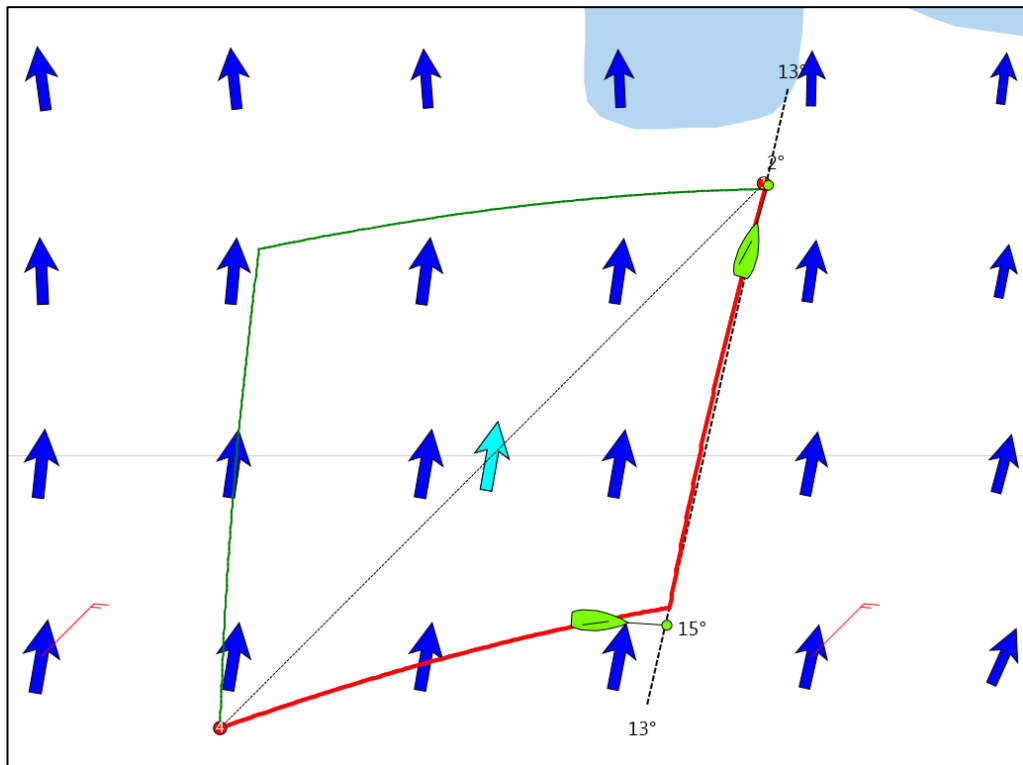
Boat 2

Boat 3

Boat 4

Message

- Unselect boat 1.
- Click **Routing leg**.
- Zoom in a bit.



This graph shows the upwind routing of a laser dinghy in a wind shift right together with a measured current field.

See the attack angle of 15 deg with current from the right side.

11 Finally

This paper is just a brief look onto the functionality of *SailTokyo*.

Find more on our website soon!