

SailTokyo - Quick Tour 2

Measuring Currents

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1 Requirements

This tutorial requires the *SailTokyo* desktop solution, a team cloud and the IOS app for measuring currents:

- Trial version *SailTokyo.exe* (Send mail to info@buell-software.com)
- Team cloud (Get *InstallTeamCloud.pdf* at www.buell-software.com)
- IOS App *SailTokyo - Current* (Download free version at appstore)

2 Measurement methods

The sailing solution *SailTokyo* supports different currents measuring technologies:

- GPS based measuring buoy CurrentNow
- GPS based measuring buoy TideBot
- IOS app with manual input of currents data collected by any device
- IOS app with GPS-based collection of currents data

Note that buell software offers integration of any hotfolder/hotfile based measuring system into your specific team branch of *SailTokyo* (Additional service).

3 Team cloud data storage

Every device (Desktop, Apps...) in a team is able to synchronize, measure or import data of currents. The collected data is linked to maps or open waters if the measuring position fits in the map area.

To share data between team members the data of currents may be synchronized via team cloud.

Example:

The measurements of currents made on different RIBS can be shared automatically between all team members (In real-time if internet is available).

4 Measuring with App

Read manual [Manual.AppCurrent-2.pdf](#) (Download at www.buell-software.com) to learn how to synchronize the measurements of currents with your team cloud.

5 Measuring with GPS buoy

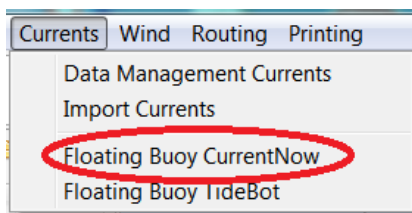
SailTokyo uses hotfolders and hotfiles as interface between the measuring buoys and the system.

Example:

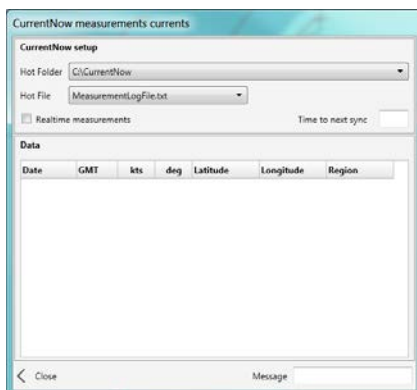
- Hotfolder: C:\CurrentNow
- Hotfile: MeasurementLogFile.txt

Follow the instructions for using any measuring buoy (Here we use CurrentNow).

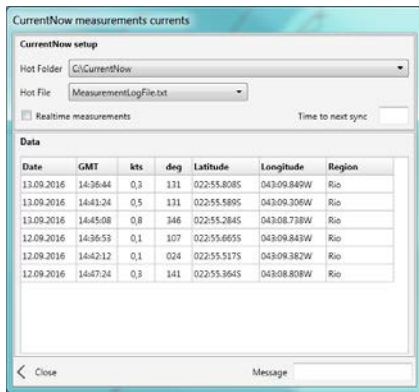
Before loading the currents, load the map of [Rio](#).



- Create an empty folder **C:\CurrentNow** on your windows computer or a corresponding folder on your Mac device if the buoy supports Mac.
- Open dialog **Floating Buoy CurrentNow** in **Currents**.

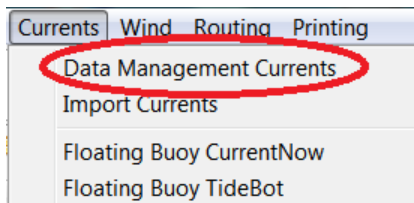


- See dialog with empty currents list.
- Switch on **Realtime measurements**.
- Copy hotfile **MeasurementLogFile.txt** (Request test file at info@buell-software.com) into hotfolder to simulate the measurement process of the measuring buoy.

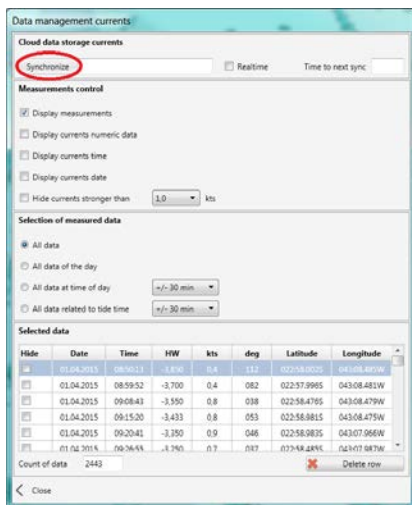


- Every 5 seconds **SailTokyo** reads the hotfile and displays content of hotfile.
- If the selected map corresponds with the area of your data the vectors are immediately displayed on the screen.
- You may close dialog and let **Realtime measurements** run as long as they are enabled (Checkbox).
- Measurements are stored locally on your computer.

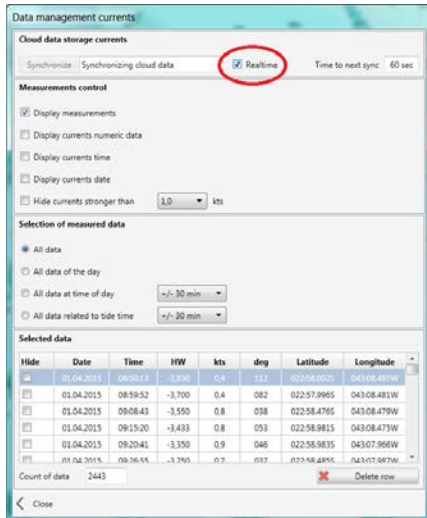
6 Share measurements with team cloud



- Open dialog **Data Management Currents** in **Currents**.



- The list **Selected data** displays the currents of our test file (and other existing data of the region).
- To share this data with team members and to load other measurements from team cloud click **Synchronize** in the top left of the dialog.



- To be up-to-date at every time, set checkbox **Realtime**.
- Data will be updated every 60 seconds.

7 Import the data of currents

SailTokyo imports any data of currents if supplied in row based text format.

For this example:

- Load map **Enoshima**.
- Find folder **Documents\SailTokyo\ImportCurrents** on your computer.
- Copy file **Enoshima19062017.txt** (Request file at info@buell-software.com) into that folder.

Go to the main menu **Currents** -> **Import Data** and open the dialog “Import Measurements”. The import tool needs to know the column of the data and the appropriate format. Set up data order and format as shown here:

Data order and format	
Seperator	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 data of currents as a text file.
- Make sure to assign the data the correct column and format.

Available files

Enoshima19062017.txt

Name

- 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

- Import data.
- Open dialog **Currents -> Data**.
- View your list of imported currents.
- This can also be viewed as arrows on the map.

8 Filter measured currents

Measured currents can be used to generate fields of currents (Simulator). *SailTokyo* comes with a data filtering dialog to select data for usage.

Data management currents

Cloud data storage currents

Synchronize: Sync ready Realtime Time to next sync:

Measurements control

Display measurements

Display currents numeric data

Display currents time

Display currents date

Hide currents stronger than kts

Selection of measured data

All data

All data of the day

All data at time of day

All data related to tide time

Selected data

Hide	Date	Time	HW	kts	deg	Latitude	Longitude
<input type="checkbox"/>	27.10.2017	12:45:00	+1.723	0.8	027	035.17.200N	139.30.500E
<input type="checkbox"/>	27.10.2017	12:40:37	+1.833	0.0	105	035.17.466N	139.30.000E
<input type="checkbox"/>	27.10.2017	12:46:07	+1.933	0.0	007	035.17.438N	139.30.280E
<input type="checkbox"/>	26.10.2017	12:45:43	+3.333	0.3	095	035.17.448N	139.29.669E
<input type="checkbox"/>	26.10.2017	12:53:05	+3.467	0.3	106	035.17.385N	139.30.331E
<input type="checkbox"/>	26.10.2017	13:00:48	+3.543	n.d.	131	035.17.436N	139.31.309E

Count of data: 55

- Open dialog **Currents -> Data Management Currents**.
- Manage the selection of data by checking boxes.
- Option **Hide currents stronger than** filters invalid currents with speed above limit (E.g. measured while RIB sails).



- Example: Display of currents on map with checkboxes **Display currents time** and **Display currents date** switched on.

Data management currents

Cloud data storage currents

Synchronize Sync ready Realtime Time to next sync

Measurements control

Display measurements

Display currents numeric data

Display currents time

Display currents date

Hide currents stronger than 1.0 kts

Selection of measured data

All data

All data at time of day +/- 30 min

All data at time of day +/- 30 min

All data related to tide time +/- 30 min

Selected data

Hide	Date	Time	HW	kts	deg	Latitude	Longitude
<input type="checkbox"/>	20.06.2017	19:00:00	+3.633	1.5	000	03517.000N	139.31.000E
<input type="checkbox"/>	20.06.2017	19:20:00	+3.800	1.1	001	03517.000N	139.32.000E

Count of data 3 Delete row

Close

- Section **Selection of measured data** qualifies data to certain limitations.
- **All data of day** limits data to measurements of selected day.
- Example: List of data of a specific day. This option is useful to display all measurements taken on a day.
- Option **All data at time of day** generates a selection of measured data around a specific time of day.

Data management currents

Cloud data storage currents

Synchronize Sync ready Realtime Time to next sync

Measurements control

Display measurements

Display currents numeric data

Display currents time

Display currents date

Hide currents stronger than 1.0 kts

Selection of measured data

All data

All data at time of day +/- 30 min

All data related to tide time +/- 30 min

Selected data

Hide	Date	Time	HW	kts	deg	Latitude	Longitude
<input type="checkbox"/>	04.04.2015	07:30:43	+5.017	1.6	179	022.58.554S	043.08.499W
<input type="checkbox"/>	04.04.2015	07:39:02	+5.100	1.4	184	022.59.023S	043.08.502W
<input type="checkbox"/>	04.04.2015	07:43:18	+5.167	0.9	171	022.59.020S	043.07.991W
<input type="checkbox"/>	04.04.2015	07:48:08	+5.230	1.3	172	022.58.541S	043.07.998W
<input type="checkbox"/>	04.04.2015	07:52:44	+5.317	1.0	174	022.58.076S	043.08.000W

Count of data 157 Delete row

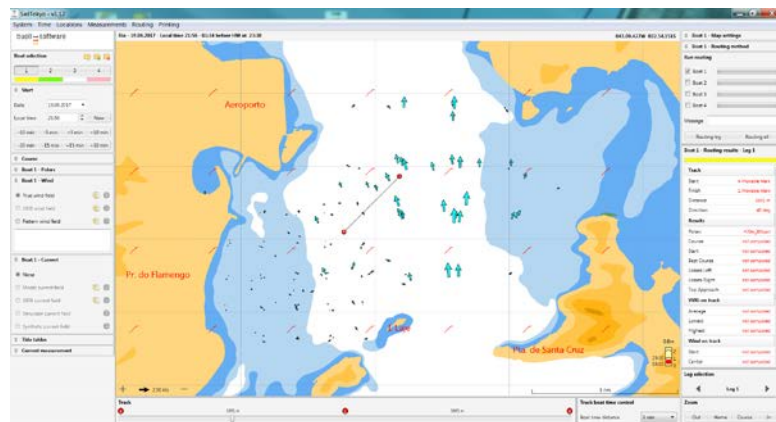
Close

- If map or open waters comes with tidal calendar you see a gauge at bottom right of map. Option **All data related to tide time** compares time to high tide of each measurement with actual time to high tide of map. Only data within the range are displayed (See combobox).
- This option generates a field of currents based on measurements related to tidal period.

Example:

Rio 19.06.2017 - Local time 21:56 - 01:34 before HW at 23:30

The filter displays all data within 01:04 before HW and 02:04 before HW (+/- 30min)



Selected data					
Hide	Date	Time	HW	kts	Dir
<input checked="" type="checkbox"/>	31.03.2015	09:59	-2,067	0,2	012
<input type="checkbox"/>	31.03.2015	10:06	-1,950	0,7	096
<input checked="" type="checkbox"/>	31.03.2015	10:12	-1,850	0,6	075
<input checked="" type="checkbox"/>	31.03.2015	10:19	-1,733	0,3	053
<input checked="" type="checkbox"/>	31.03.2015	10:27	-1,600	0,3	305
<input type="checkbox"/>	31.03.2015	10:41	-1,367	0,5	033
<input type="checkbox"/>	31.03.2015	10:49	-1,233	0,6	042

- If individual data does not fit the behaviour of the field of currents (e.g. measurement error) hide the data by checking the box.

9 Additional Information

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

Find more on our website.