Sailing Performer
present

Sail Chart Drafter for Deckman
v.2

This application has been made to help navigators and trimmers to find the right sail to use in a faster and easier way than ever.
Sail Chart Drafter takes information from instruments through the *Deckman*, showing a pointer on the *Sail Chart* with the True Wind information coming from live, simulated, current leg or along all the others course legs.

The interface has been designed with two main tabs (***Sail Chart*** and **Info & Setup**).
The Sail Chart one has three sub tabs:

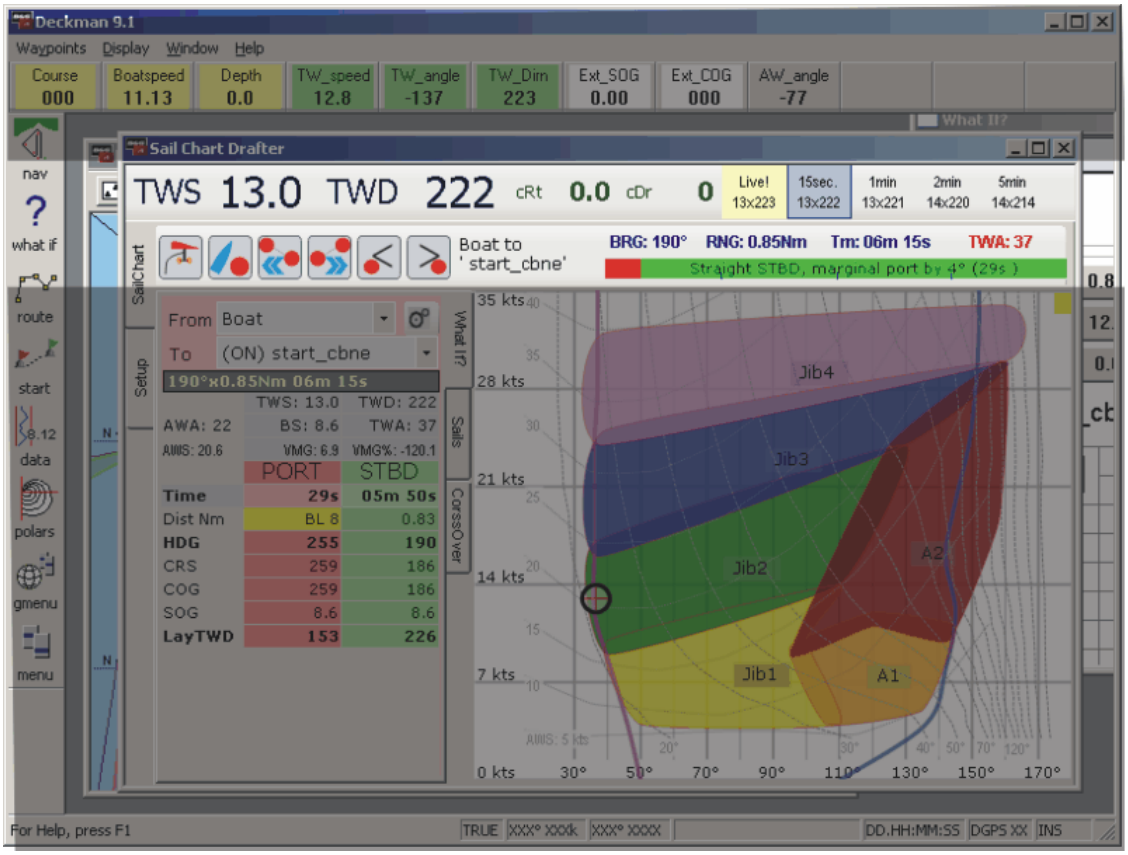
1. ***What If***
   to know selected leg information.
2. ***Sails***
   to manage Sails and the Sailsets.
3. ***Cross Over***
   the utility to work on the empiric sail's cross over.

Basically, to work properly, all you need is:

- Build your own *SailSet* starting from the starting crossovers of your boat.
- Work with the proper *Polars*.
- Build the racing course with the *Deckman* routing tools.
- Refine your Sail Chart with the Cross Over utility.

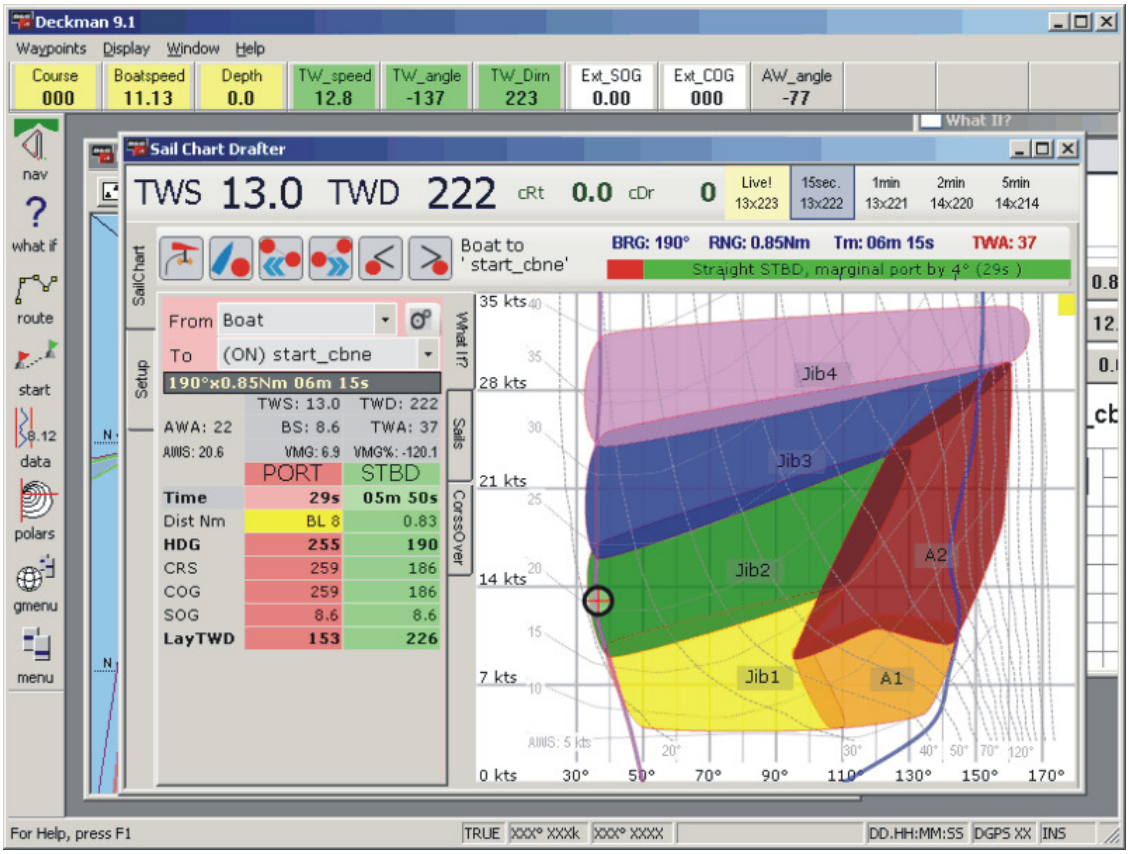
Quick Reference Guide

Top Bar



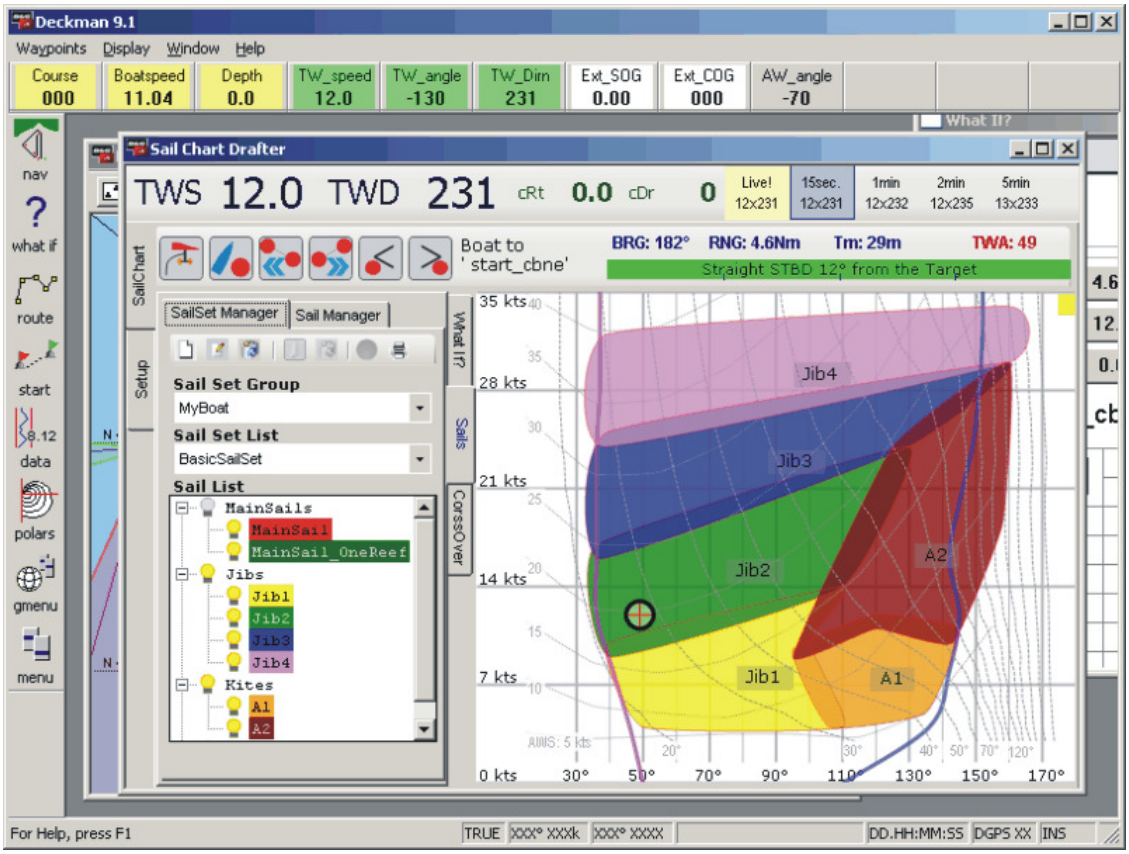
The top row has *Wind Speed and Direction* coming from instruments with the damping selected by one of the five buttons of the same first row. *Current Rate and Direction* are used with *Deckman* damping only (Current source selectable by the Setup Tab).
Wind data with the selected damping are at the base of the *What If* calculation. All this data can be manually changed for simulations.
The second raw has four buttons to determine how to show the pointer in the sail chart: with data live from instruments, from the boat to the active waypoint or waypoint to waypoint. The fifth and the sixth buttons are to change the WhatIf active mark. On the right of these buttons a long bar shows numerically and graphically basic data of the course to do (or what you're doing when in live mode).
Below the first two rows mode tabs and *Sail Chart* are displayed.

What If? tab



The *What If* tab is a powerful tool to show all needed data of curse legs. Wind data are taken from the top bar and can be adjusted with more details through the advanced interface (usually hidden). The biggest difference with the *Deckman What If* is the chance of to manipulate directly the wind on the water instead of the ground wind, to be able to hold single values and the more intuitive way to show data. The *Sail Chart Pointer* is affected by the changes made in the What If tab.

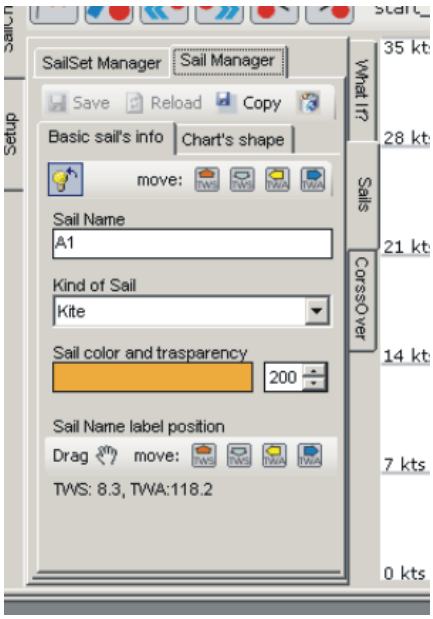
Sails tab



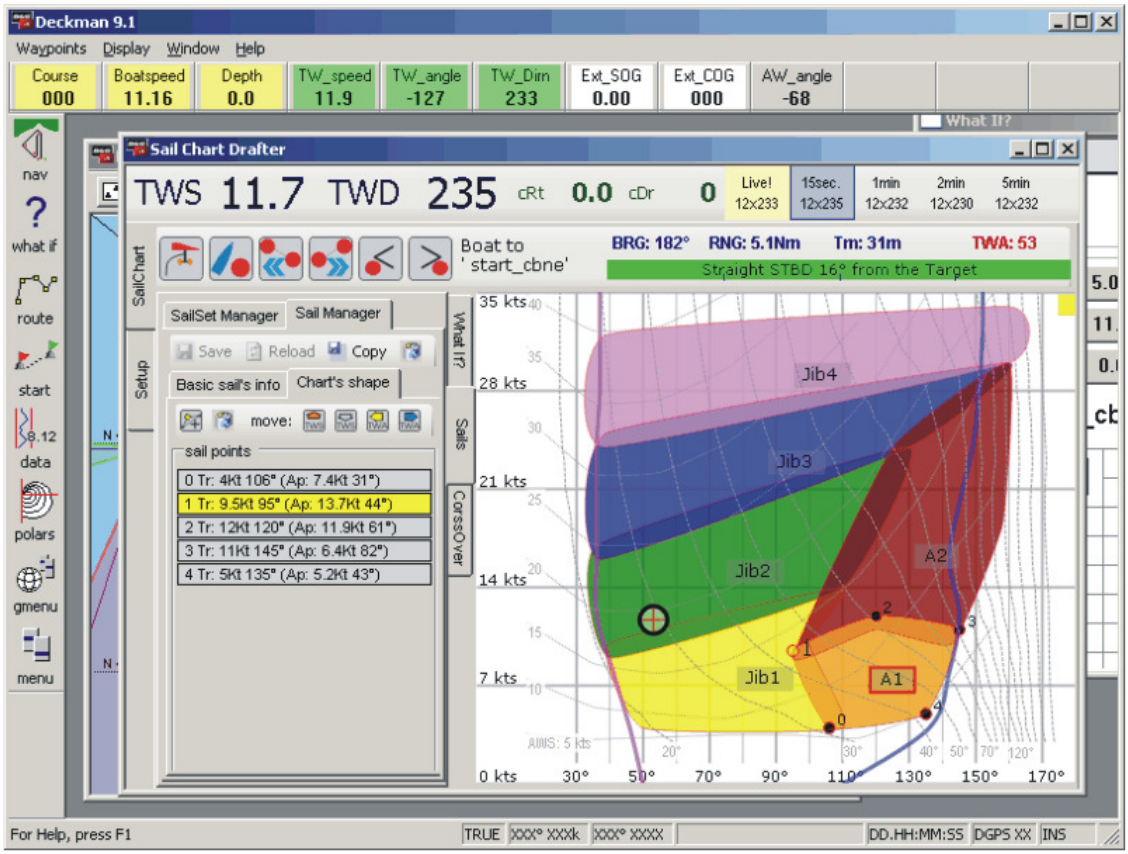
Two sub-tabs are present there, one to manage the sailsets and one to manipulate single sail details.

Work with *Sail Set Group* and *Sail Set List* to filter displayed sails and to prepare different sail set scenarios for different seasons, race's typology with the same boat or for different boats.
Working on the *Sail List* Double click on kind of sail to swap between display or hidden on the *Sail Chart* sails of that kind. Double Click on single sail to start to manage his details.

Sail Manager tab has two sub-tabs one for basic sail info, as name , kind, color and name label position and the second one, *Chart's shape* tab, to manage fiducial points of the sail her self.
Name Label can be moved with button arrows or dragging it on the *Sail Chart.*



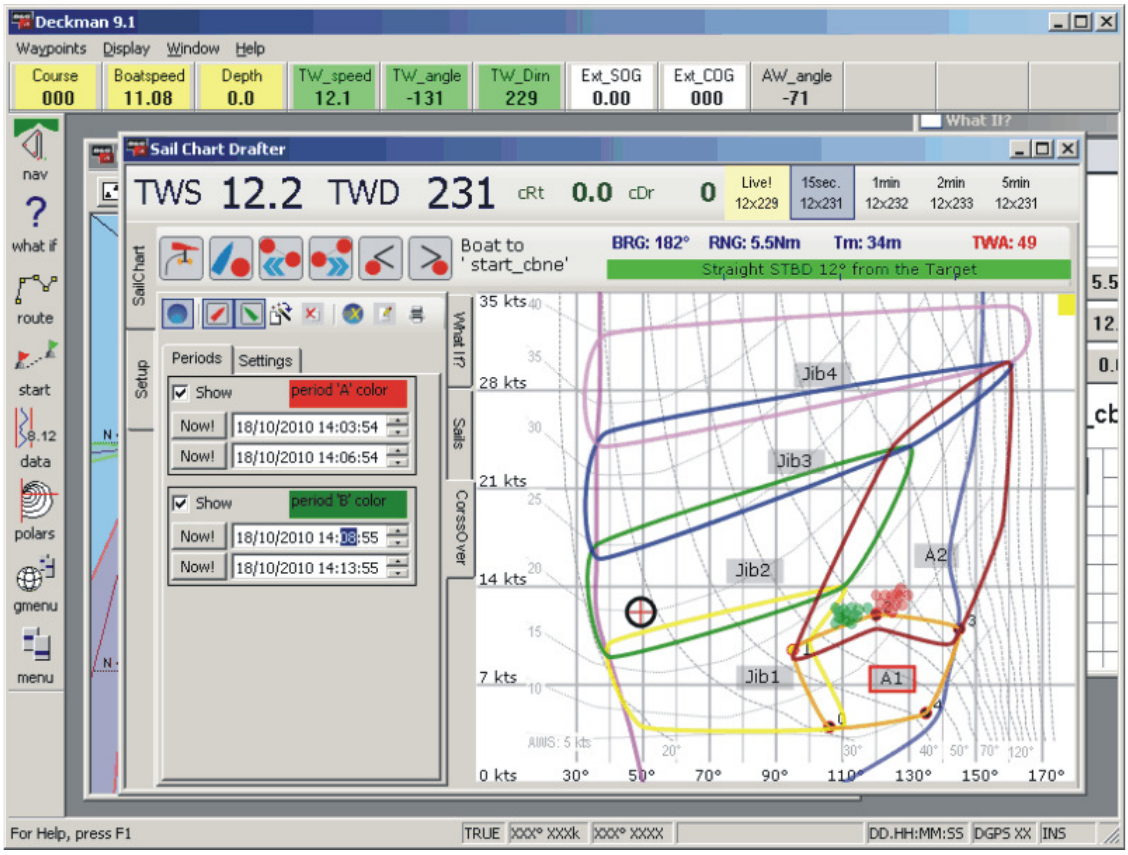
Chart's shape tab has to be selected as well as the active point to manage the sail shape on the *Sail Chart*. First of all, select with simple click the point you want, after that press the *add button* to add another point after him, press delete to remove it or press one of the button arrows to move it. Once selected you can drag the point thought the Sail Chart in the position you want.



The active point is displayed on the *Sail Chart* with a bigger number and with a yellow circle instead of the black one.

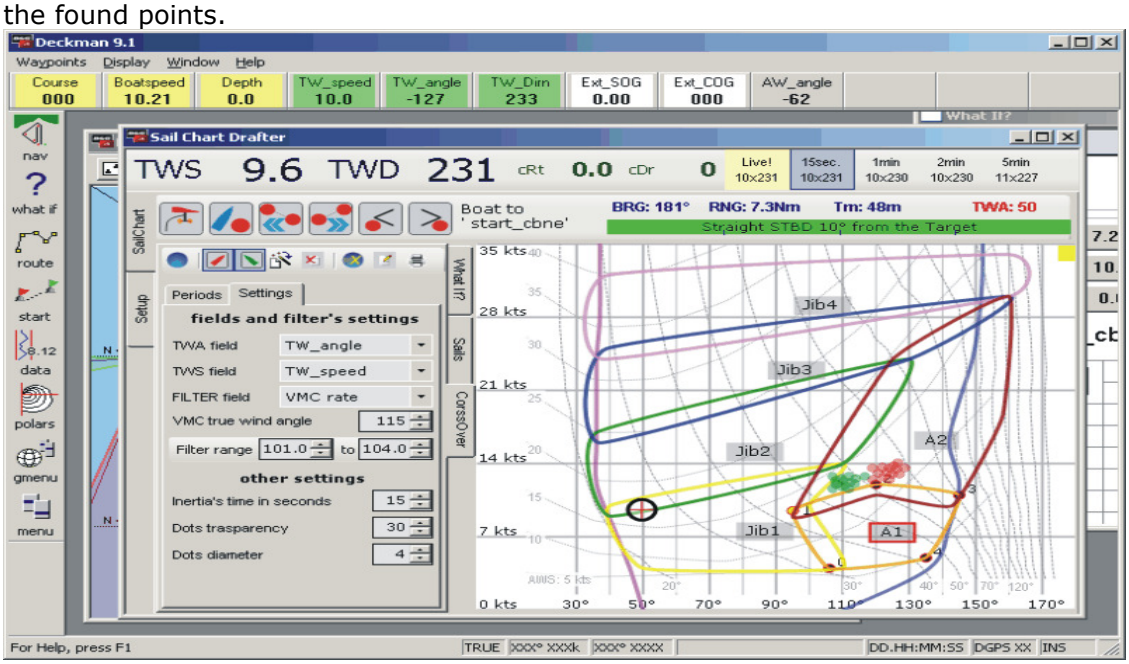
Cross Over tab

This is a very powerful tool to define sail's Cross Over with a simple but deeply scientific approach.



This utility works directly with data stored in the *deckman* database taking them out to be drafted on the *Sail Chart*.
First step to start is to note the time periods when you tested the setups to compare, usually are relative to different sails but can be a to different rig setups or anything else.
Once you have this time periods add it by the *Add* button and change times and colors as you need.
Now! Buttons are used and very useful on live testing.
"P" and "S" buttons are options to decide if to show Port only, Starboard only or both data on the *Sail Chart*.
Sail shapes are displayed with borders only to make the image of it more clear.
Periods can be exported as complete text log files or as test file ready to be imported in Sailing Performer for a deeper analysis.

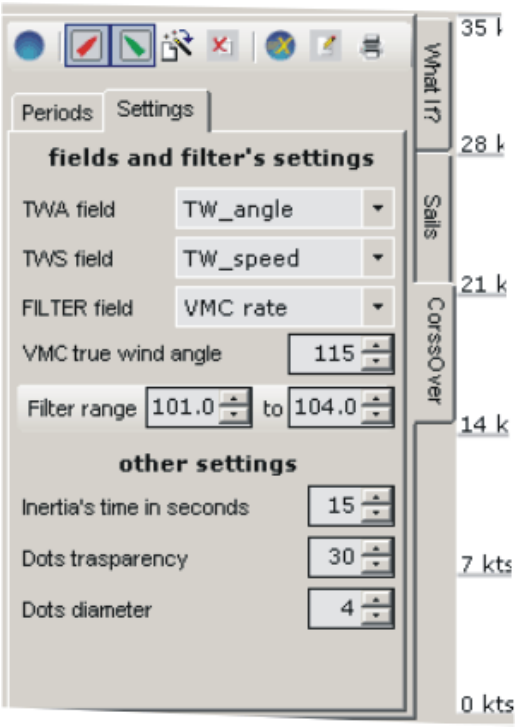
The Settings sub-tab is to manage fields to use, the filter to apply and how to display the found points.



TWA and TWS fields are the deckman database fields where True Wind Angle and Speed are stored. *Filter Field, Divided By, Range and VMC true wind angle* are the filter options:

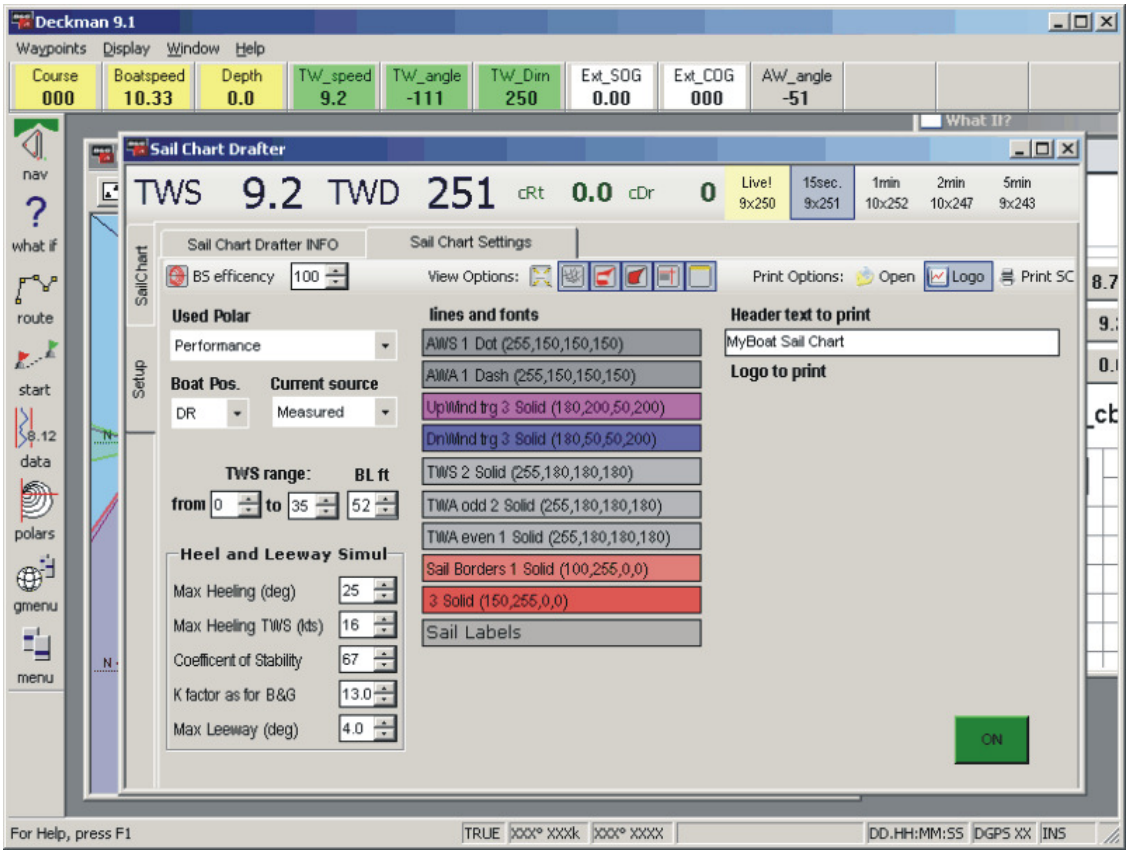
- When *FILTER field* and *Divided by* are selected the filter is made making the rate between first and second field.
- When *Divided By* has set as "not used" the filter range is applied on the *FILTER field* only.
- When on the *FILTER field* "VMC rate" has selected, the filter is made with the rate between the boatspeed and the polar boatspeed for the selected true wind angle. That is the best way to understand better reaching cross over.

In all these cases only data inside the *Range* are displayed.



Inertia time in seconds is to set how many seconds have to be considered before punctual data as point's averages of TWA and TWS.
Dots transparency and diameters have to be used to make more clear the displayed result.

Setup tab



This tab is used to manage basic settings as:

- TWS range
- Witch deckman polar has to be used and to set the boat speed correction factor, if needed, to show more reliable apparent wind lines.
- How to determine the Boat Position.
- Witch current rate and direction the Add-In has to take from deckman.
- The Boat Length in feet, that is displayed by the What If, instead of the distance in miles, when close to the lay lines.
- The print settings as the logo image and the header.
- To format lines and labels
- To decide which lines and features to display on the *Sail Chart.*
- Few general performance data to determinate heeling and leeway of the boat in the next legs.

Configuration files

To run the application copy the add-in '*SP_SailChart_DFWXx.dll*' into the "*deckman addins"* sub-folder and launch deckman.
From the "*gMenu*" button select "*SP Sail Chart Drafter*" voice into the *Add Ins* menu.
Running the application for the first time, the system loads a default *Sail Set* made with a Mainsail, Jibs and kites.
After that you should start to modify your *Sail Set* adding and deleting sails, changing ranges, colors and all other details.
The second step is to work with the *Cross Over* utility to define always better the sails to use.

All application settings are stored into the "spscs.xml" file located into the *Deckman* installation path sub folder ".../AddIns/SPSCfiles".
The print logo will be copied in the same folder.

- Release 2.32.X.2010 is a DEMO beta version expiring December 31, 2010