Adrena software
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We are going to present the range of functions available in Adrena software. They are based on the principle of modularity and complement each other. The software can be configured according to your experience and actual needs. Whether you are taking part in inshore, offshore or ocean races, whether you are a racing sailor, a trainer or router, or whether you need to develop your boat's performance, you will find what you need here.

Part 1: The windward-leeward loop and the TrimBook

The windward leeward loop has the particular feature of being predefined so that a certain number of typical functions can therefore be described. It is an exercise where tactics predominate and decisions must be taken rapidly.
It is fundamentally important to have the right information at the right time, presented clearly. Visual and graphical presentations are essential factors for making the right decision in this process.

1- How to prepare for your race

We will begin with the software settings.
There are four different aspects: the boat, the polars and rotation tables, the screen and the course.

For the graphical representation to be as realistic as possible, we will customise the boat's settings, its size, the position of the GPS and also the type, to take into account the nearest point of the stem to the start line (there could be several!).
As for performance, we will differentiate between three distinct polars: a performance polar, which will be used to calculate target speeds, a polar for the start phase and timing calculations, and a sailing polar for calculating laylines. In practice, the basis will be our performance polar, which will be modified to take into account specific aspects, such as no running sails, unsettled wind so that performance is altered, an open VMG angle for the start polar. The navigation polar can be considered as a working polar: it will be adapted for angle and speed to the current conditions; that is to say, it will take into account the influence of waves on each tack or the quality of the wind (gradient, wind shear). This will increase the accuracy of the laylines (timing and angle).

An additional step is available in TactiquePro where the manoeuvres are taken into account in calculating timings for the pre-start phase. The

speeds of rotation can be entered in tables depending whether the boat is tacking or gibing in different wind strengths. Thus, as the boat moves away or approaches the committee boat (for example), the software will indicate the time to reach the committee boat. The various trajectories calculated can be seen in fig. 1. The heavier the boat, with difficulties in rotating or with rapid changes in speed, the more significant these coefficients will be.

Now that the software can calculate the different data required, they can be prepared for use. Using the software, the display can be configured according to the phase of the race, so that the right information is available at the right time. You can work on decision-making with each piece of information in its own position and particular representation on the screen, juggling with the colours. See Fig. 1.
The chart can also be displayed when required (doubtless absent at the start!) as can the necessary toolbars.
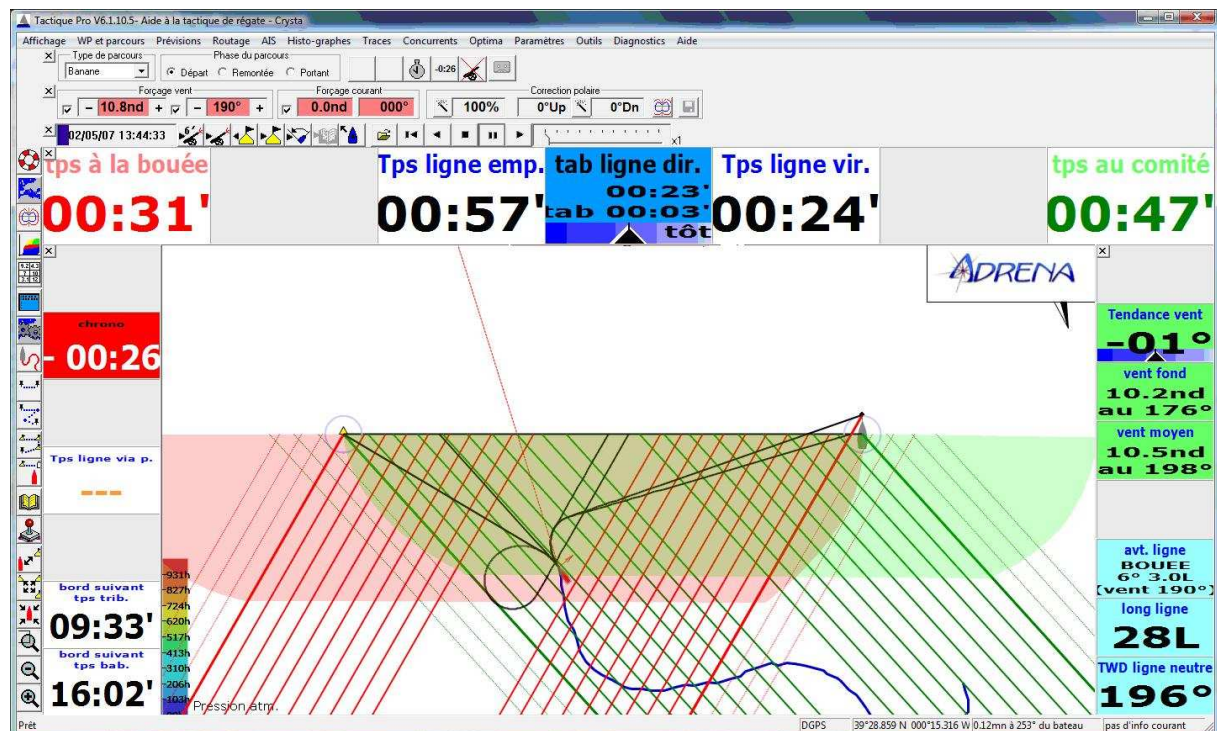Ideally one only wants ever to display useful information.

Fig. 1

Now that you are ready, the race is approaching and the course must be entered. As a windward leeward loop has a predefined format, Adrena has a special window for managing markers. See Fig. 2
The course markers can be positioned (with or without leeward gate). They can be set, marked on the chart, positioned by Lat/Long or relative to one another. In short, you can easily adapt to a course change, or a line modification by the committee just before the warning gun. All these actions on markers can also be made directly on the chart.
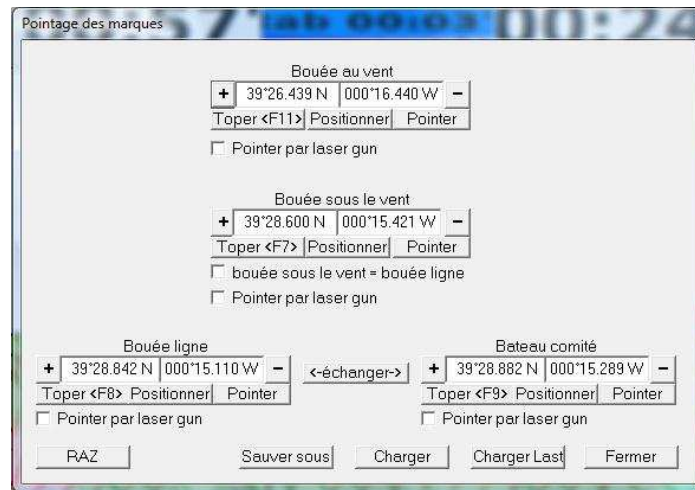
Fig. 2

It is important to remember that the various timing calculations depend on the force and direction of the wind, and that these two values have the annoying habit of being very boisterous during transition phases or disturbed by the other competitors. It is advisable to fix these two variables, and the current (or exclude it), in order to work with more stable times. Take care, however, to adjust the forced value to any wind changes!
This applies at the start and also when approaching a mark.

In conclusion, and this is true in general when using any software assisting with decision-making, it is a combination of your analysis of what you observe on the water, what you feel and the data from the software that will help you make the right decision.

2- The different phases of the race

As can be seen from the window shown earlier, Figure 1 describes a start phase. It is possible to have information added to it on line advantage, average wind over an adjustable period, and time to the laylines close-hauled.
The green and red areas represent the safe starting area, in other words the area in which you are not late. Practical and visible!
With the toolbar at the top the wind and current can be fixed and the sailing polar quickly modified.
Note also the Replay toolbar. Generally speaking, all Adrena's functions are available in Replay mode. All the tracks recorded when sailing can be replayed ashore, even on another PC. Being able to do provides a wide range of analysis functions (particularly for data management and track analysis). For the start, all the forced data are recorded in the track and can be modified: timings can thus be analysed and simulated later.

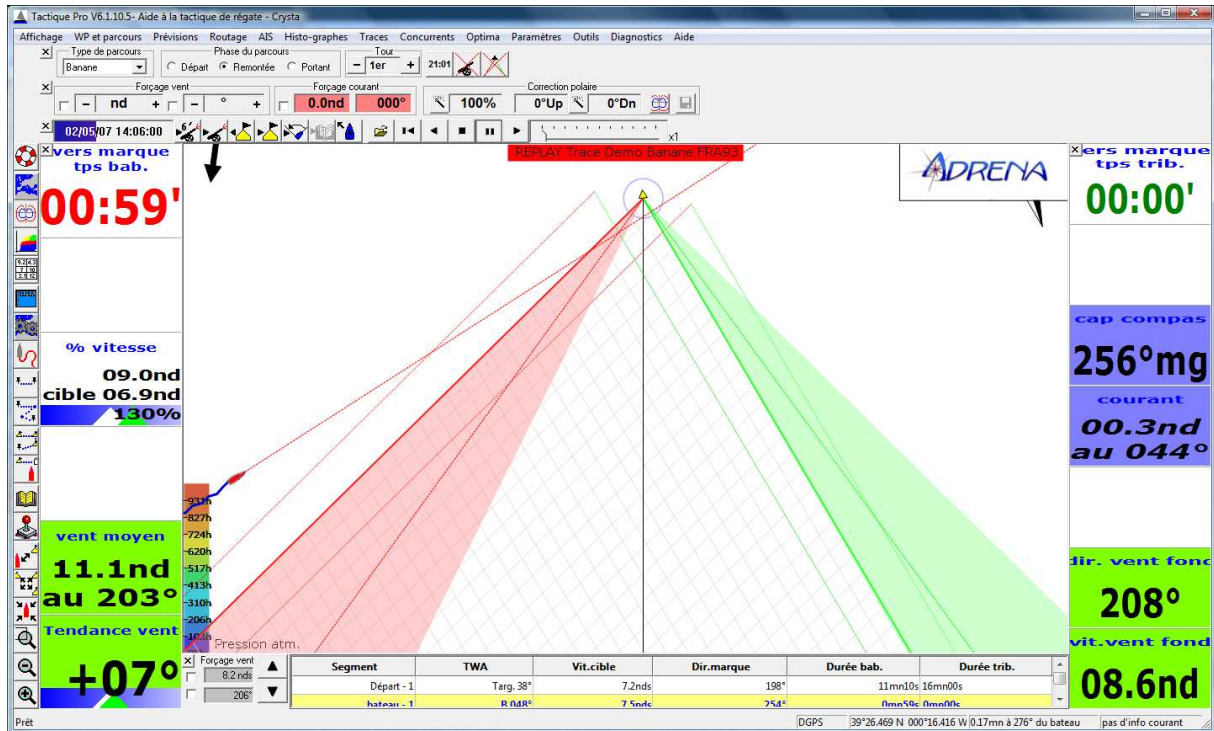Figure 3 shows an example of the screen for tacking and running phases:

Fig. 3

Note the course axis, squares at the VMG angle and a special screen configuration for this phase. The layline cones (green and red) represent the previous history over a customisable time period, while the layline on the current wind is shown in bold and there is also a mean layline which is dotted, several items of information which are very useful for aiming for a layline when the wind is unstable or fluctuating.
In a course window (at the bottom of the screen) the wind can be monitored, the next tack anticipated and simulations made of the wind swinging round.

When running, the same type of information is found and you can change the screen configuration if you wish. In this phase, there is a choice of calculating times on one of the buoys of the leeward gate or, for a finish when running, on the buoy or the committee boat, little differences which can help you be well positioned when approaching markers.
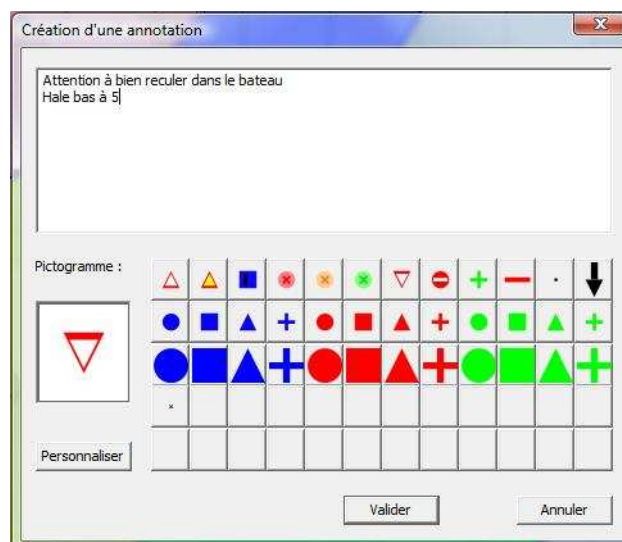
3 – My TrimBook

During this windward leeward loop, places have been able to be gained due to a lot of small adjustments or trim, resulting in a finish at the front. These adjustments etc. must be noted, so that I remember them and can profit from them in a future race.

Let us open our TrimBook, in other words our trim adjustment notebook:
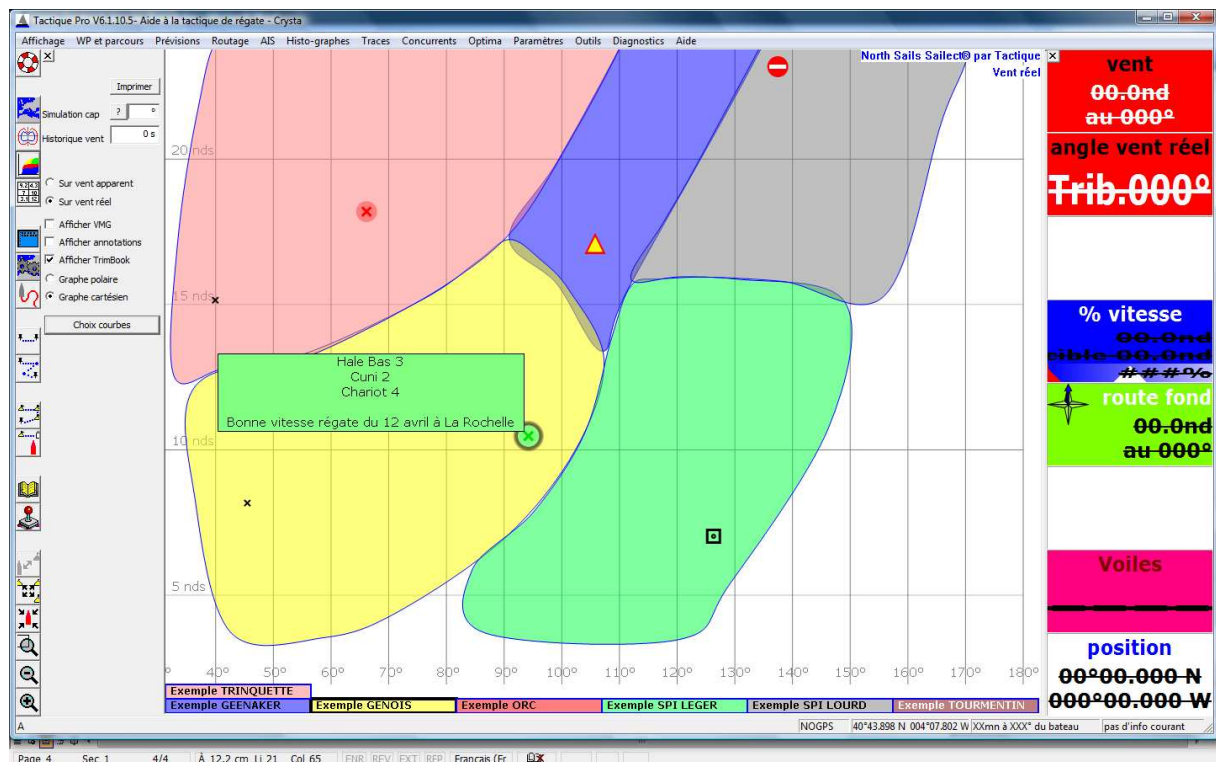
Annotations are superimposed on our Sailects. They are linked to a comment. By working on the coding of these annotations, you can easily identify, for example, your genoa roller, or the position of the crew, the areas to work on and those to avoid. By checking a box the TrimBook can be displayed or not, and when the mouse is over an annotation the comment appears. To add an annotation simply double click on the TWS/TWA range which is of interest and the dialogue box below appears:

Annotations can be customised and the list of favourites updated. In addition, the TrimBook can be exported so that your USB memory stick can hold your little secrets ….

Part 2: The RoadBooks, alarms and MyBible