

## Features of Coach's Toolbox

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### Coaching - use prepared exercises and shape them yourself

#### A) Overview:

**Tactical Sailing for beginners** - basic knowledge for optimal steering of a sailing boat

**Basics of regatta sailing in different wind conditions** - strategy and tactics against the wind

**Tactical situations from start to finish** - Starting line with preferred side - Starting line with early start control - On Course Side (OCS) - first beat - screwed course - windward and leeward marks - field tactics upwind and downwind - zone and overlap - stretch bow and lashing line - speed and altitude - finish

#### **Special tactical situations for experts**

**"Tactics against the wind"** - Chance of a short cut - Risk of extension - Gain and loss

**"Tactic boat against boat"** - Multi Player 10 boats - starting phase with 10 boats - windward buoy with 10 boats - lee buoys - gate - with 10 boats - right of way - protest and jury - Fleet Race - Match Race

**Regatta training - four boats - four sailors at the start (multi-player 4 players):** fleet, match and team race, sailing champion format. Several training levels Wind 1x1 to 4x4 - start phase with count down and "On Course side control(OCS)" - windward buoy - lee buoys - zone and overlap - course marker room - right of way - protest and jury - regatta training selectable at different wind speeds, - wind 1x1 to 8x8, constant or random, with gusts and calm.

**My regatta,** set your own course, 6 buoys, 4 boats

**"Team Race" for four boats - "Two against two"** - course in "Q or S" form, as it is also usual for a world or national championship.

**"Sailing Champions league" - 4 boats - 4 clubs train for the league.** The TS model of the J/70 was developed on the basis of the polar diagram belonging to the boat type and is therefore identical to a real J/70 in its sailing characteristics. Regattas can be started with 2 or 4 boats (game mode: "boat against boat").

**"Coach's Highlights"** are a selection of 20 tactical exercises from the overall program of the 'Coach's Toolbox' with over 100 exercises. In the overview you can select a 'keyword' and with a 'click' the exercise starts. You are automatically taken to the category in the menu item: **TIPS TACTICS**.

**America's Cup:** With the new **AC40** racing yachts, the excitement of fast sailing at up to 100 km/hour can be increased, the "foiling wings" make it possible.

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### **B) List of features:**

#### **Tactical Sailing for Beginners- Basic knowledge for steering a sailboat:**

- First steps: Steering a boat
- Luv up and Bear away
- Tack and Jibe
- Sailing against the wind - beating
- Speed: Bearing away and luffing up
- Using wind direction and strength
- Maneuvering with multiple boats
- Right of Way rules

#### **Fundamentals of sailing a regatta on various wind conditions**

- Strategy and Tactic against the wind
- Set your own course, starting and finishing lines, marks
- Set your wind conditions, 9 different wind regions (Wind 3x3)
- Strong and light wind
- Wind shifts, persistent shifts, oscillating wind
- Gusts, lulls

#### **Fundamentals of sailing a regatta and tactical situations from start to finish:**

- Starting line with preferred side
- Starting line with On Course Side (OCS) control
- First beat
- Skewed course
- Windward and leeward marks
- Field tactics for upwind and downwind
- Zone and overlapping
- Long leg and lay lines
- Speed and pointing
- Finish line

#### **Special tactical situations for Experts - "Tactic Against the Wind"**

- Chance of shortcut
- Risk of extension
- Gain and Loss
- Calculation of facts
- Risk zones
- The "safety Diamond"
- The "Switch Point"
- Distance Made Good (DMG)
- Concentric circles
- Virtual Wind system-2 for experts
- Wind shifts (continuously, ad-hoc)
- Wind fields – left and right shifts

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### **Special tactical situations - "Tactic Boat Against Boat" - 10 boats**

- Multi Player 10 boats
  - Starting Phase - 10 boats competing
  - Windward mark - 10 boats competing
  - Leeward mark - 10 boats competing
  - Gate - Right of Way
  - Protest and Jury
  - Fleet Race
  - Match Race
  - Speed - Velocity Made Good - VMG and VMC
- (See screenshots below)

### **Regatta training for Four boats - Four sailors to start (Multi-Player 4 players):**

Fleet-, Match and Team Race, Sailing Champions League.

(see screenshots below)

- Several exercise levels Wind 1x1 to 4x4
- Starting Phase with count down and On Course side control(OCS)
- Windward mark
- Leeward mark
- Zone and overlapping
- Mark room
- Right of Way
- Protest and Jury
- Regatta training with different wind strengths selectable,
- Wind 1x1 to 8x8, constant or random with gusts and lulls.

**My Race** - lay out your own course, 6 buoys, 4 boats.

### **Regatta areas - Championships and Cups**

The experiences of regatta sailors on special areas at championships and cups are provided in the following exercises:

- Hamburg Outer Alster - First and Gold Fleet
- London to Rio 2016 - Medal Race Olympics London 2012 - Belcher&Ryan
- Auckland Cup - Gusts
- Constance Cup - Wind Fields - Regatta in Lindau, Überlingen and Constance

**Right of way:** The essential rules of the right of way, e.g. leeward boat, wind from starboard, overlapping, and special tactical maneuvers at the gates: 'Chicago' and 'JK', a total of 17 situations are simulated and explained.

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### Boats



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## Features of Coach's Toolbox

### Screenshots



Dragon Gasic



Lutz Kirchner



George Blaschkewitz



Michel Heilingbrunner



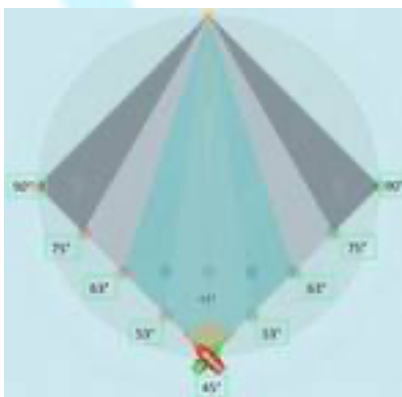
Kids playing



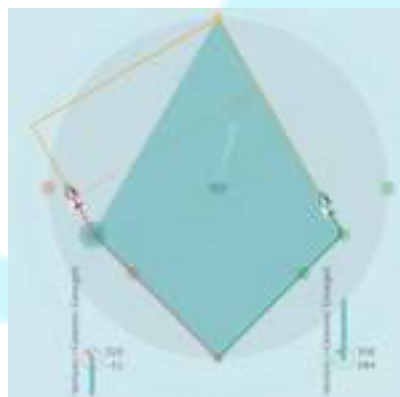
Beginners – Luff up



Beginners - Tack - Jibe



Risk zones



Loss and Gain



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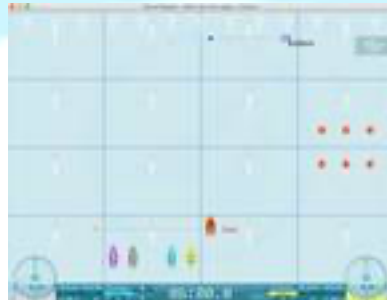
Gusts and Lulls in Wind 1x1



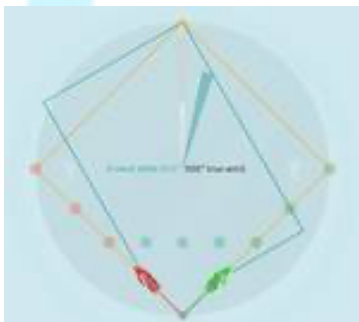
Gusts and Lulls in Wind 4x4



Match Race 4 boats



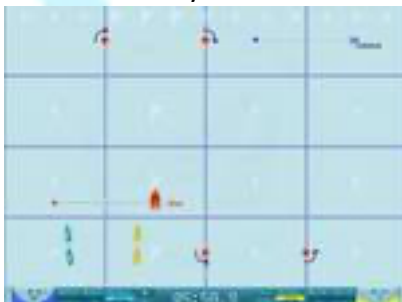
My Race, 6 buoys, 4 boats



Wind system-2



Starting lphase - 10 boats



Team Race – 4 players



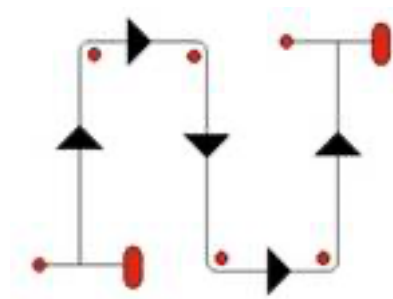
Sailing Champion league Format



Wind Fields with Left and Right Turners - Lake Constance - Cup in Constance, Lindau and Überlingen

## Features of Coach's Toolbox

### SPECIAL RACES AND EXERCISES



Course in S-Form



Team Race Game

#### **"Team Race" - for four boats - "Two on Two."**

Tactical Sailing has made this Team Race available because, in many respects, "it's fun," and it increases the "learning effect," even if it's only small teams, such as "Two on Two." These are two answers from Chris Atkins, Chief Umpire IODA Team Racing European Ledro 2008. Team Race is developed for four boats – Two on Two. The buoys are to be rounded on either starboard or port side. The sequence Start-1-2-3-4-Finish Line corresponds to the course in a "Q or S" form, which is used at world and national championships. The wind conditions are "Wind 1x1" for beginners and "Wind 4x4" advanced sailors. The starting procedure begins with the countdown; the time can vary as desired between 1 and 6 minutes.

#### **"Sailing Champion League" - 4 Boats - 4 clubs training for the league**



League 15 minutes flight



League 4 boats



League 2 boats

We have developed various Regatta situations especially for "Sailing League". This simulation, with different levels of difficulty for tactical training, was developed in preparation for Club Championships. As in a real regatta the "Up and Down" courses are

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sailed with a One Design J/70. The "Tactical Sailing-Model" of the virtual J/70 was developed on the basis of a polar diagram of a J/70, thus making it identical to a real J/70. Regattas can be sailed with 2 or 4 boats (Modus: "Boat against Boat"). A sparring partner is steered by the PC's "Autopilot", for comparison with the course of the sailor's own boat (Modus: "Game Against the Wind"). The wind has a format of "1x1" and "4x4", but can be individually adjusted to specific sailing conditions for training purposes. In compliance with the "Sailing League Rules", a sailing time limit of 15-20 minutes has been set. The "Tactical Sailing Simulator" has developed a complete race, covering various laps, in keeping with this time limit. With constant changing wind conditions, through a random generator, each race sets new demands on the sailor right at the starting line. These so-called "15 Minute Flights" are very challenging, and necessitate full concentration and a high tactical skill. The training accomplishment of a sailor in the J/70 can be recorded with a "Tracking Line System" for later analysis and assessment. For example: the course that was chosen, active, maximal and average boat speed. Also the number of tacks and jibes required. In the Menu: "Boat" all these options can be displayed and selected.

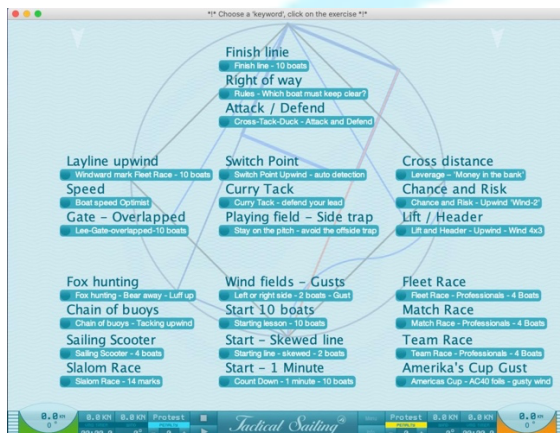


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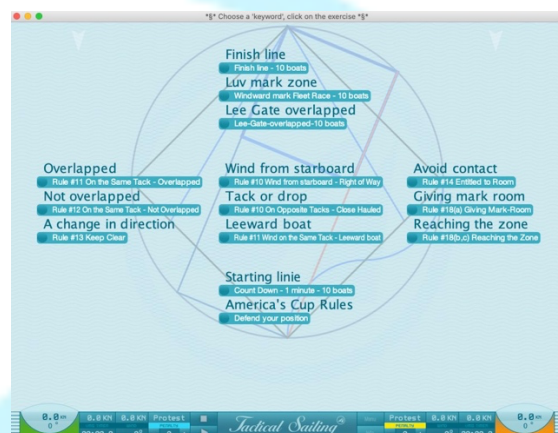
### Coach's Highlights

20 exercises an introduction to 'tactics', 'right of way', America's Cup - 'foiling wings'

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Tactic exercises

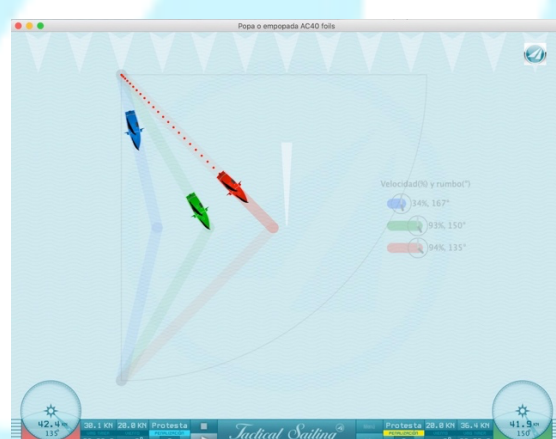


Right of Way Rules

**America's Cup:** With the new AC40 racing yachts, the excitement of fast sailing at up to 100 km/hour can be increased, the "foiling wings" make it possible.



Wind 4x4 gusty



Speed down wind

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### Multi Player - exercises with 10 boats

The coach can let sail 6 boats at tactical positions and on predetermined routes (visible or hidden).

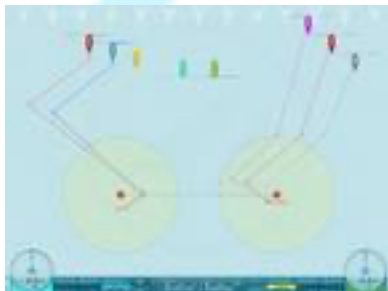
Another 4 sailors then actively and tactically try to start with their 4 boats, approaching the upwind or downwind mark, or to round a Lee Gate, and to head for the goal.



Count down - 1 minute to go



Start with 10 boats on time



Approaching Lee Gate



Finish line with 10 Boats

### Velocity Made Good:

Optimized speed against the wind (VMG) and towards course (VMC)



Tactic disc VMG



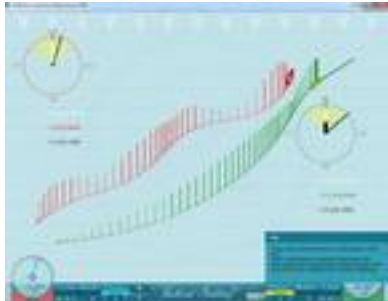
Tactic disc VMC

The simulation of "Velocity Made Good towards "Wind" (VMG)" will show you the practical way to more speed. However, the theoretical background is explained. Your advantage: Instead of remaining in the tackle hanging out in the downdrafts, you can optimize your boat speed and even get on the port tack a tactical advantage in the next turn by the right of way with wind from starboard. Your boat shows in the cockpit and on a tactical display the values (KN): Wind speed, boat speed and Velocity Made Good (VMG).

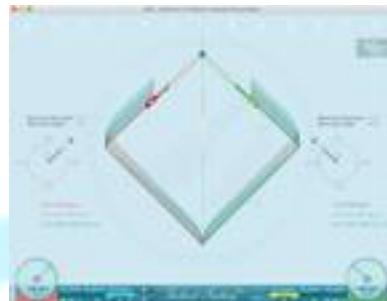
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The simulation "Velocity Made Good towards Course (VMC)" shows you the speed on the way to your destination, a buoy on your course, e.g. in windward or lee.



Simulation VMG



Simulation VMC



Tactic

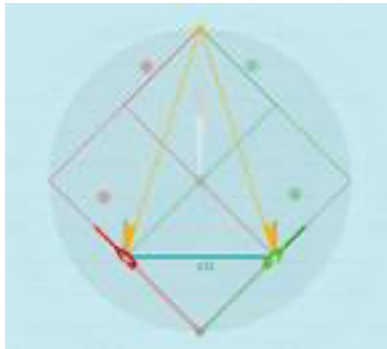


Exercise

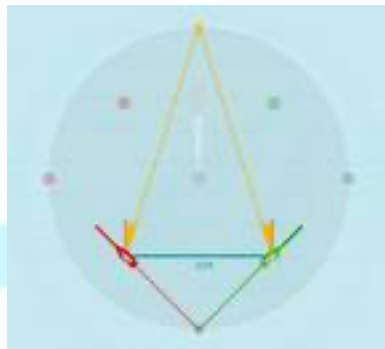
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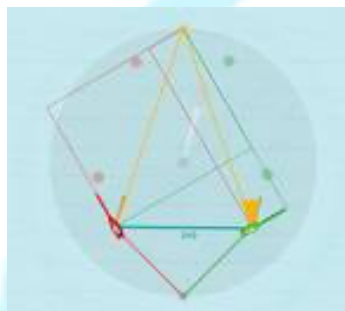
**Chance and Risk - Gain and Loss - see it all at the simulation**



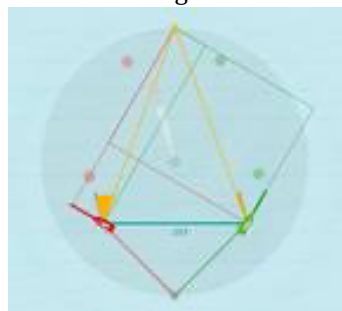
Distance boat to boat



Bearing



Wind shift 15°



Wind shift 345°