

SAILSCAN II USER'S MANUAL

exclusive of North Sails Group, LLC

Developed by DUEBI Informatica s.n.c.
Written by Andrea Bazzini e Davide Bucci
Thanks to Michele Ivaldi

Introduction

North Sails SailScan II software is intended to allow North Sails' designers and salesmen to quickly measure sail and rig curves from digital photograph files. The software includes a database management routine that will help you to store and retrieve photograph files in an organized manner.

System requirements

The North Sails' Sailscan II software is compatible with any PC platform running Windows98SE, Windows ME, Windows 2000 or Windows XP. No particular hardware configuration is required other than sufficient free space on the hard drive to run the set-up and store images.

Set Up

The software is supplied on a self extracting CD.

Insert the CD and follow the Setup wizard prompts.

In case this procedure doesn't start automatically, use Windows Explorer to browse the CD unit and run the executable "Setup.exe". Follow the setup instructions. You will be asked the destination directory where the software will be installed. The Sailscan folder will be created by default, you may change it if desired.

You will be prompted as to which modules will be installed: the program, drivers and database.

Initially all the modules will be active. You are allowed to modify if necessary; otherwise continue the set up.

If the Driver module has been selected, a new setup for the hardware key will be performed (Sentinel System Driver), follow all the steps without modifying anything.

At the end of this setup, you may be asked to restart your computer. The answer is NO.

The database setup may require a few minutes, please be patient.

At the end of this procedure, the software will have been completely installed on your PC.

Use of the Software

The program is based on the standard windows technology, with multi document interface. There are different command menus that vary according to the active document. Following are a list of commands accessible from the different menus, as well as some tips on using the software.

Menus - The program offers two sets of menus:

The first menu is available when there are no open documents:

File	Open...Ctrl+O	Shows the dialogue to search for and open archived files
	Image import...	Lets you import a new image to analyze from any drive
	Select Twain source...	Lets you choose the desired Twain device
	Import from Twain...	Lets you start the acquisition procedure through the Twain device previously selected.
	Printer setup...	Shows the printer setup interface
	Settings	
	Select working folder...	Lets you choose and/or modify the folder from which the program will operate.
Exit	Exit from the program	
Edit	Class	Show class editor
	Boat	Show boat editor
	Category	Show the category measure editor
	Sail code	Show the sail code editor
View	Tool bar	Show/Hide the tool bar
	Status bar	Show/Hide the status bar
	Info	Show/Hide the information dialogue
?	About SailScan...	Show the About dialogue

The second menu becomes active when one or more documents are open and active:

File	Open...Ctrl+O	Shows the dialogue to search for and open archived files
	Close	Close the active document
	Image import...	Lets you import a new image to analyze from any drive
	Image export...	Saves the document
	Select Twain source...	Lets you choose the desired Twain device
	Import from Twain...	Lets you start the acquisition procedure through the Twain device previously selected.
	Page setup...	Shows the printed page setup interface
	Print...Ctrl+P	Start printer
	Print preview	Print preview
	Printer setup...	Show the printer setup menu
	Settings	
	Select working folder...	Lets you choose and/or modify the folder from which the program will operate.
	Exit	Exit from the program
Edit	Class	Show class' editor
	Boat	Show boat's editor
	Category	Show the category measure editor
	Sail code	Show the sail code editor
Measures	New Measure Set	Create a new set of measurements that can be performed on the same image.
	New Stripe	Add a new stripe
	Auto/Manual	Enable/disable the automatic measurement of a shape stripe
	Delete Stripe	Remove the active shape stripe measurement

	Twist Spline Linear Fit	Lets you put a reference line to calculate the Twist angle Activate the interpolation by Spline method Activate the interpolation by Linear Fit method
Image	Auto levels Rotate 90° CW Rotate 90° CCW Mirror Flip	Elaborates the images by automatically adjusting the level of the colors. Rotate image 90° clockwise Rotate image 90° counter clockwise Image mirror Flip the image
View	Tool bar Status bar Info Anchor and grid	Show/Hide the tool bar Show/Hide the status bar Show/Hide the information dialogue Show/Hide the grid and points on the image
?	About SailScan...	Show the About dialogue

Dialogues

Open



Through this dialogue it is possible to search for previously archived images. You can search using different parameters, including: Date, TWS, Boat, Sail Code etc.. Once a list of previous analysis is found, it is possible to open one or more documents at a time. From this dialogue, it is also possible to delete one or more analysis.

Function of the buttons:



Start the search. This action will delete any previous search result.



Start a new search, with new parameters, adding the results to the list of results previously obtained.



Delete from folder (and from database) all images and information related to the selected analysis.

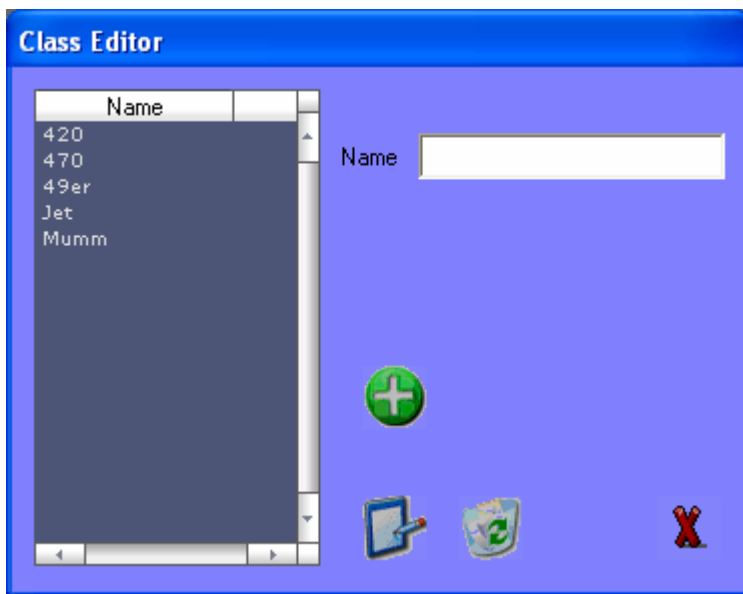


Open the selected documents.



Close the dialogue window.

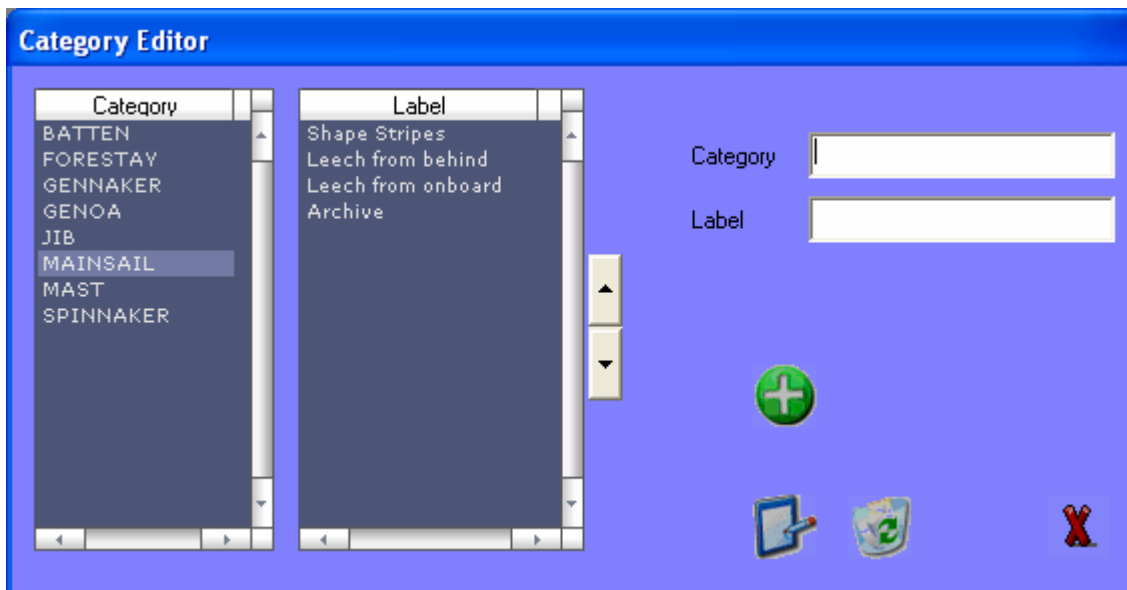
Class Editor



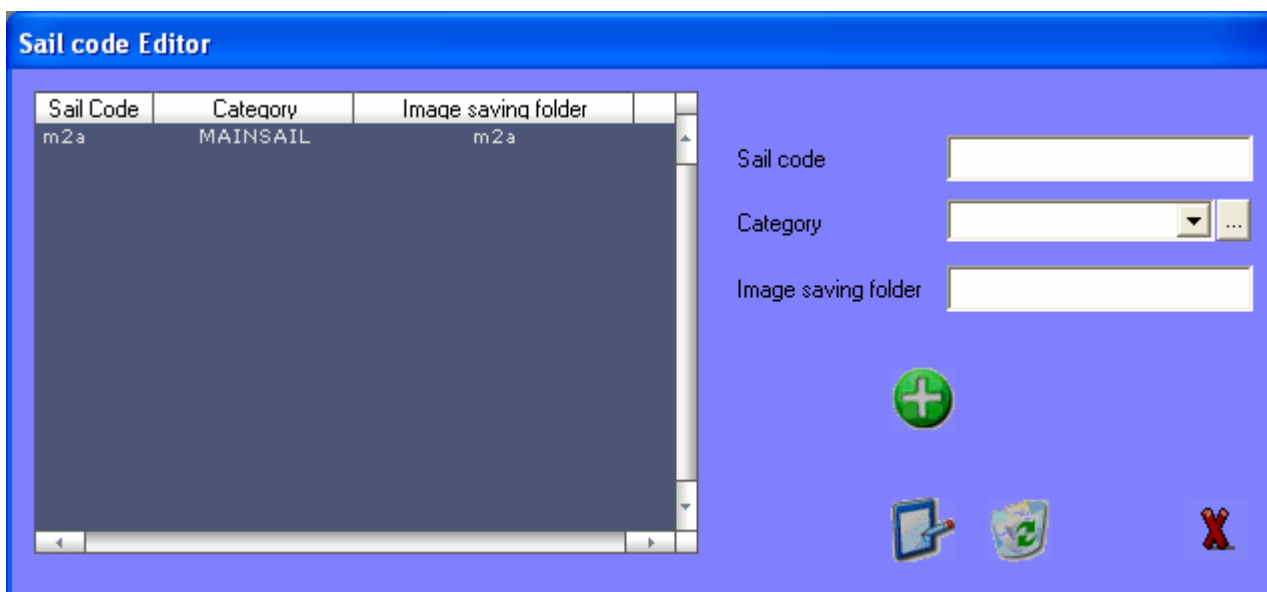
Use this dialogue to define or modify the Class table.



Use this dialogue to define or modify the Boat information table.



Use this dialogue to define or modify the Category and Label table.
It is possible to change the label order.



Use this dialogue to add or modify the Sail Code table. In the image saving folder, you must specify the path where you want the pictures with this code to be saved. The image saving folder is located inside the initial “working folder.”

Function of the buttons:



Add the inserted data into the relative Database table.



Change the detail of the selected data.



Erase the selected item from the relative database table.

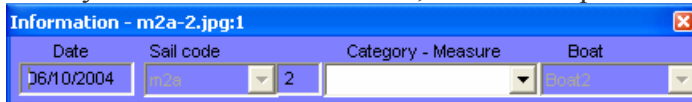


Close the dialogue.

Info

The info dialogue lets you see a series of information concerning the analysis you are performing. The dialogue has 4 different levels, containing various sets of information.

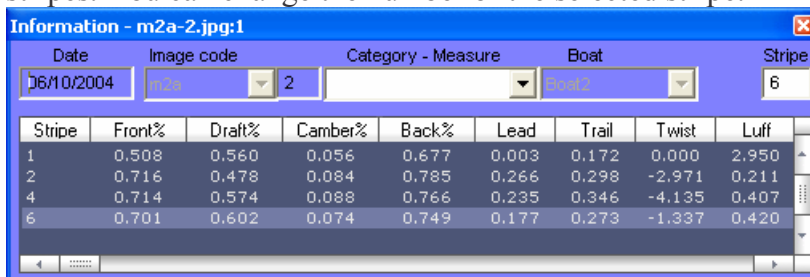
In the lower level the sail code, the boat name and the type of measure are showed. If the document has never been saved, it is necessary to fill in these fields before the record button becomes active. Once you store for the first time, it won't be possible to modify date, sail code and boat name.



Information - m2a-2.jpg:1

Date	Sail code	Category - Measure	Boat
06/10/2004	A2a	2	Aval0

In the second level, you can access all the numerical information concerning the measured shape stripes. You can change the number of the selected stripe.



Information - m2a-2.jpg:1

Date	Image code	Category - Measure	Boat	Stripe
06/10/2004	A2a	2	Aval0	6

Stripe	Front%	Draft%	Camber%	Back%	Lead	Trail	Twist	Luff
1	0.508	0.560	0.056	0.677	0.003	0.172	0.000	2.950
2	0.716	0.478	0.084	0.785	0.266	0.298	-2.971	0.211
4	0.714	0.574	0.088	0.766	0.235	0.346	-4.135	0.407
6	0.701	0.602	0.074	0.749	0.177	0.273	-1.337	0.420

The third level shows all the information regarding wind condition and trimming adjustment. You have the option to fill all or part of the fields or leave blank, as you wish. In this level, the SAVE and PRINT buttons will be visible and accessible.



Information - m2a-2.jpg:1

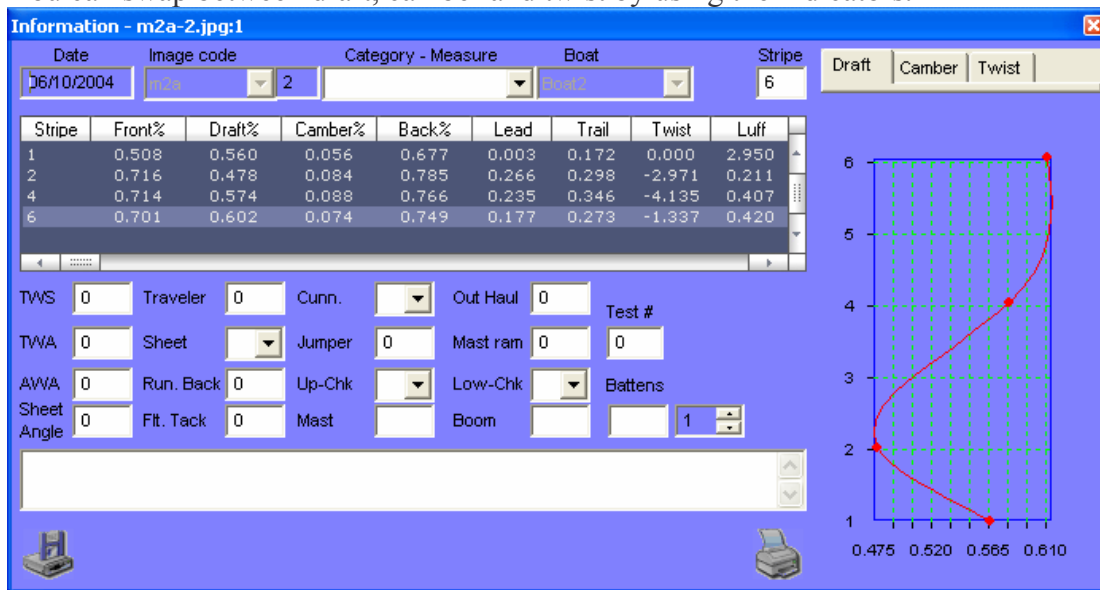
Date	Image code	Category - Measure	Boat	Stripe
06/10/2004	A2a	2	Aval0	6

Stripe	Front%	Draft%	Camber%	Back%	Lead	Trail	Twist	Luff
1	0.508	0.560	0.056	0.677	0.003	0.172	0.000	2.950
2	0.716	0.478	0.084	0.785	0.266	0.298	-2.971	0.211
4	0.714	0.574	0.088	0.766	0.235	0.346	-4.135	0.407
6	0.701	0.602	0.074	0.749	0.177	0.273	-1.337	0.420

TWS	0	Traveler	0	Cunn.		Out Haul	0	Test #
TWA	0	Sheet		Jumper	0	Mast ram	0	0
AWA	0	Run. Back	0	Up-Chk		Low-Chk		Battens
Sheet Angle	0	Fit. Tack	0	Mast		Boom		1

Icons for a scanner and a printer are visible at the bottom of the dialog box.

The fourth level shows the vertical distribution profile for the main measurement. You can swap between draft, camber and twist by using the indicators.



Function of the buttons:



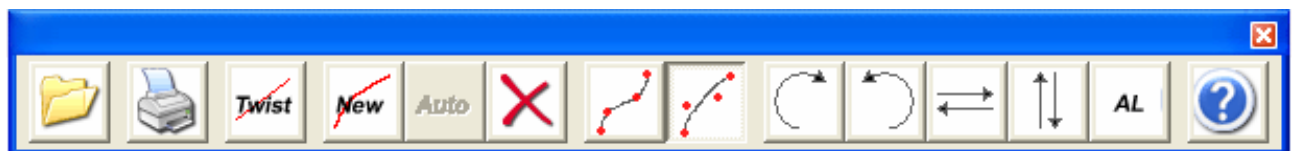
Save and store in the database the analysis and all the information



Print the current analysis.

The user Interface

Toolbar



The toolbar contains all the most common functions, eliminating the need to look for them throughout the various menus. There are 3 different categories of functions: commands on the document, commands on the curves and commands on the images.

Function of the buttons:



Shows the dialogue to search and open archived files.



Print the current analysis.



Lets you put a reference line to calculate the Twist angle.



Add a new stripe to the document. Every curve starts with no point on the curve.



Delete the active curve.



Activate the interpolation by “SPLINE” method.



Activate the interpolation by “Linear Fit” method.



Rotate image 90° clockwise. You can only perform this function on images not previously saved.



Rotate image 90° counter clockwise. You can only perform this function on images not previously saved.



Image mirror. You can only perform this function on images not previously saved.



Flip the image. You can only perform this function on images not previously saved.



Elaborates the images by automatically adjusting the level of the colors.



Show the About Dialogue.

Performing an analysis

After importing an image into the working window, having defined all the codes for sail code, boat and team, you may proceed in measuring the sail.

When measuring a mainsail, it is always useful to take the picture incorporating a piece of boom into the picture. This will allow you to place the Twist reference line (on top of the boom) and to get the twist angle also in the lower stripe of the sail. This cannot be applied to genoas. If you do not place a Twist reference line, the Twist information will be in relation to the first measured stripe.

Using the mouse, right clicking will allow you to place any dot you want, in any position you want. Always remember to start placing the first dots of any measurement from the luff side of the sail. Once you have completed the first curve, hit the New button to start measuring the second stripe and so on...

To move a dot, point at it and left-click with the mouse. You can also change the dot order along the stripe, or add additional dots at any time using the right-click button on the mouse.

Zoom

You can zoom the image at any time while editing:

Zoom In	SHIFT + Left Mouse Button
Zoom Out	SHIFT + CTRL+ Left Mouse Button
Zoom Area	SHIFT + Left Mouse Button Down + Move mouse + Left Mouse Button Up
Zoom Fit	Resize the image to fit the full screen. SHIFT + double click RIGHT Mouse Button