

AC Rule

Windows Version 15

User Manual

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AC Rule Program

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AC Rule User Manual

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AC Rule

AC Rule provides measurement and rating data for International Americas Cup Class yachts. It can work with hull measurements provided by the designer, or can automatically measure a hull designed using Maxsurf. The yacht's rating is updated whenever a parameter is changed, providing instant feedback during the rating optimisation process.

This version of AC Rule is compliant with America's Cup Class Rule Version 5, December 15, 2003, which has been adopted by the Challenger of Record and the Defender for America's Cup XXXII.

Installing AC Rule

To install AC Rule you must install Maxsurf Pro first or already have Maxsurf Pro installed on your computer. To install Maxsurf Pro, please follow the installation instructions found in the purchase letter at the front of this binder.

Once Maxsurf Pro is installed:

- **Go to the Help Menu and select About Maxsurf**
- **Once in the About Maxsurf dialog box select the Options button**
- **Enter your authorisation code in the Options dialog**

You will be informed that the authorisation code was accepted and that the America's Cup Class rule evaluation option has been enabled.

America's Cup Class rule calculations may now be performed by selecting AC Rule from the Data menu.

Using AC Rule

Select AC Rule from the Data menu. You will be presented with a dialog containing a blank table of measurement data. Values are arranged in two columns, headed Measurement and Derived Value (see picture). Values in the measurement column can be entered or modified by the user or measured from a design, whereas derived values are calculated by the program and cannot be changed directly.

America's Cup Rule			
	Parameter	Measurement	Derived Val.
1	Length Between Girths (LBG)	19.051	
2	Forward Girth (FG)	2.591	
3	Angle of Topsides forward	4.445	
4	Forward Beam Correction (FBC)		-0.005
5	Forward Girth Correction (FGC)		0.300
6	Aft Girth (AG)	3.575	
7	Angle of Topsides aft	18.616	
8	Aft Beam Correction (ABC)		0.359
9	Aft Girth Correction (AGC)		1.600
10	Girth Component (G)		1.900
11	Measured Length (LM)		20.952
12	Rated Length (L)		21.150
13	Beam (B)	4.521	
14	Draft (D)	4.049	
15	Freeboard at FGS	1.500	
16	Freeboard at Amidships	1.298	
17	Freeboard at AGS	1.232	
18	Freeboard Penalty (FP)		0.002
19	Draft Penalty (DP)		0.197
20	Weight Penalty (WP)		0.000
21	Beam Penalty (BP)		0.000
22	Measured Sail Area (SM)	271.000	
23	Rated Sail Area (S)		271.000
24	Weight of Yacht (WV)	18956.233	
25	Displaced Volume (DSP)		18.494
26	Rating		23.287

Measuring a Design

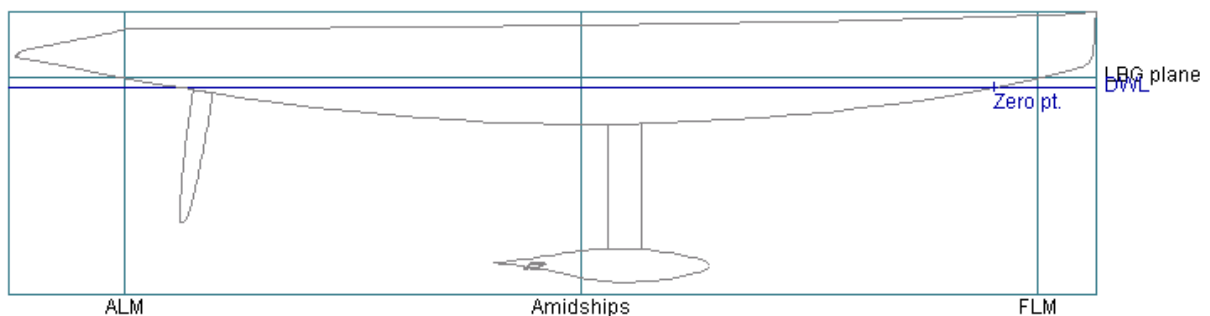
If you wish to measure a Maxsurf hull,

- Choose Open Design from the File menu
- Select your design (see the ACHull_7Surface.msdx design in the Maxsurf\Sample Designs\SailingYachts folder on your computer for an example).

When AC Rule has opened the design file,

- Choose Measure Design... from the Measurement menu

AC Rule will take several seconds to measure the design and will then insert the values found into the Measurement Column.



Note:

The design should be in measurement trim rather than in sailing trim prior to the measurement being performed.

Girth measurement

While previous versions of ACRule used planar girth measurements, the girths used for version 10.01 onward are true geodesic (i.e. chain) girth measurements.

Copying, Printing & Saving Data

To print or save America's Cup Rule measurements and calculations, it is necessary to copy the data to a spreadsheet or other similar applications.

- **Use the mouse to select the contents of the measurement data window**
- **Select Copy from the Edit menu or use the Control+C function on your keyboard**
- **Open a spreadsheet application and use the paste function in the Edit menu or the Control+V function on the keyboard to paste the information**

The information will be pasted into your spreadsheet application as tab separated text. You will be able to format, print and save this information from your spreadsheet application.

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