



Gaff Sails⁺

GAFFSails is the unique design program for designing low and high aspect ratio gaff sails.

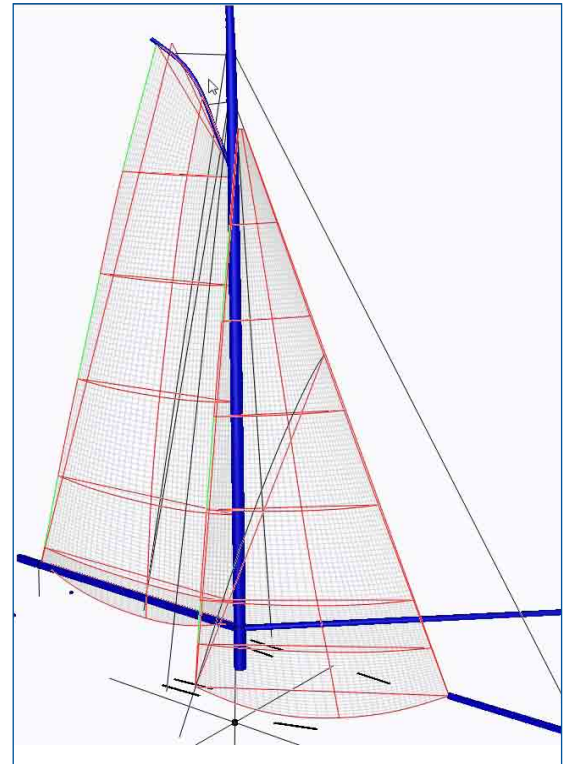
GAFFSails is fully compatible with AzureDesign.

Once the rig is set, one can select either the High Aspect option in case of high gaff points (e.g. optimist sails) or the Low Aspect option for gaff with low peak point (e.g. skûtsjes sails).

The two options have unique features that allow for high design precision.

Low aspect ratio: the gaff is treated as a sail section and square-sail design is possible.

High aspect ratio: the gaff is seen as a 'second luff', which constitutes a very versatile method to define the sail's geometry.



With the NEW SAIL WIZARD, it's possible to start a new sail by defining just a few inputs:

Luff, head and foot lengths

Leech length or Gaff Angle

Clew height or Diagonal

Camber, Position of Max Camber and Maximum Twist

Maximum curvature/position on luff, head, leech and foot

GAFFSails also allows Defining:

Dhow sail and Dhow rig

Lateen sails

Panel layout, including the full vertical panel layout

Patches

Panel development and analysis

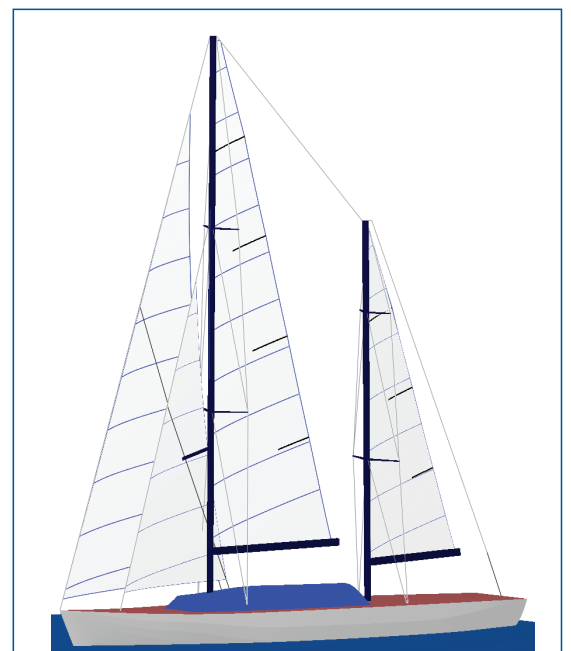
Multi-rig⁺

Users can create a full rig model for all yachts with multiple masts (such as ketch, yawl and schooner). The additional masts can be edited using the same options (to add spreaders, diamonds etc.) as the main mast.

This allows the user to design mizzen sails. Gaff sails can also be added to any mast with the rig plan.

" We are extremely happy wth AzureProject, which is helping us produce very fast, smooth sails, and we think it is the best sailmaking software available"

Ian Short, Ian Short Sails



Advanced⁺ Analysis

Most cruising and racing sails are made by assembling panels of laminated sailcloth. Laminated cloth is made of straight fibres opportunely laid in a laminated sandwich pattern. Therefore their structural properties are not homogeneous and orthotropic.

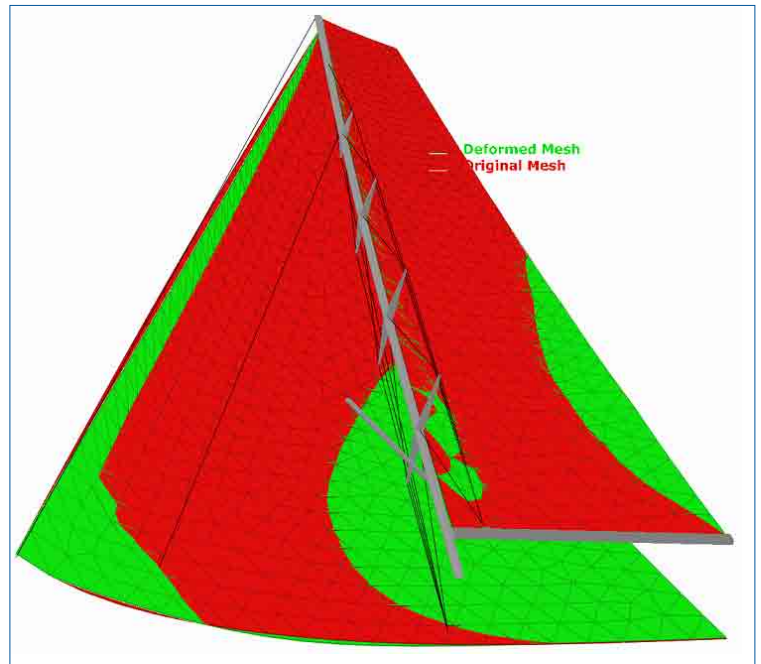
Advanced Aeroelastic Analysis tool allows sail designers to calculate the flying sailshape, stress distribution, and corner loads for laminated sails, by considering seams, panel orientation and patches.

Wrinkling of the sailcloth is taken into account. The sail can be coupled with the rig structures to calculate the Forestay Sag and the Mast luff interaction. The forestay-sag is calculated for jibs and genoas in upwind conditions, by setting the sailing forestay tension: therefore, no information about the forestay type and material is required.

As for mainsails, a defined mast bend can be set; AzureProject calculates the corresponding flying sail shape, taking into account the sailing loads and the set mast bend.

THE MAIN BENEFITS ARE:

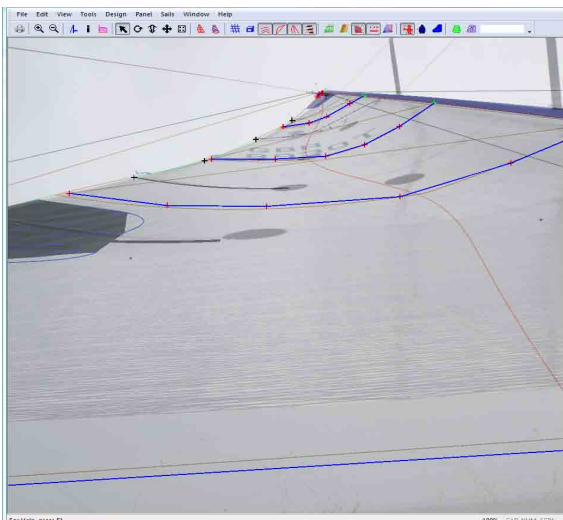
- Calculate the sail performance for various mast bend.
- Calculate the luff sag for optimal design.
- Evaluate the best trimming conditions.



The Advanced Analysis tool allows calculating the flying sail-shape and stress distribution by taking into account the specific panel layout and the type of sailcloth utilised.

Moreover, it allows to:

- Set the corner trim, as applied displacement or load
- Set halyard loads or head constraints freely



Img2Des⁺

Img2Des is available with any version of AzureProject.

This tool allows the user to measure a flying sail shape from any digital pic or image of a sail. The measured data can then be directly used to create an AzureProject design file, which can be compared with an initial sail design and/or with a flying sail-shape calculated using the analysis tools available in AzureProject.