

As we close one decade, SMAR Azure continues to develop its core technologies and deliver leading edge software products for sail designers, racers, rig and yacht designers. This issue focus on the new developments carried out on both **RigEdge** and **AzureProject**.

### USER's view: Chris Owen



There are **3 sail design tools** in AzureProject that allow me to refine my mold and edge shapes, **very quickly and efficiently**, so I know instantly that the sail is smooth both horizontally and vertically!  
C. Owen – independent sail designer

The tools are:

1. **TANGENT MESH:** it allows the sail designer to very accurately check the mold for any irregularity, by covering the sail in a mesh tangential to its surface, then by use of the graphs in vertical editor; the mold can be smoothed perfectly.
2. **BROADSEAM SLICER:** As well as showing broadseam for each individual panel, the mold can be sliced up to 15 times, showing the distribution of broadseam throughout the sails height.
3. **GEODESICS:** This function is essential to good spinnaker design, showing the shortest distance between 2 points on the mold, excellent for checking luff, leech and foot projections and unsupported areas.

### Advanced Analysis: Luff Sag calculation

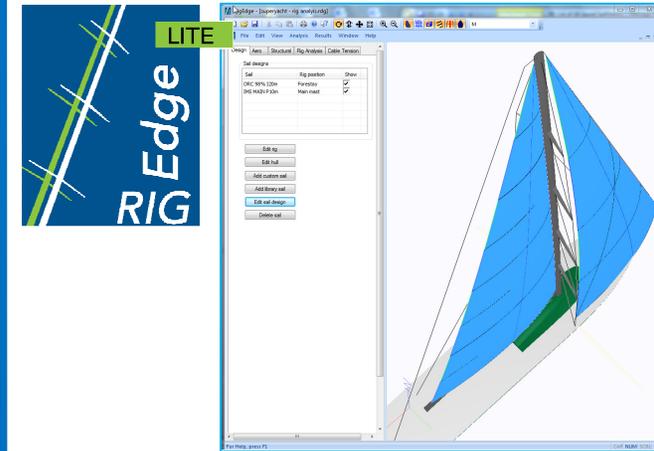
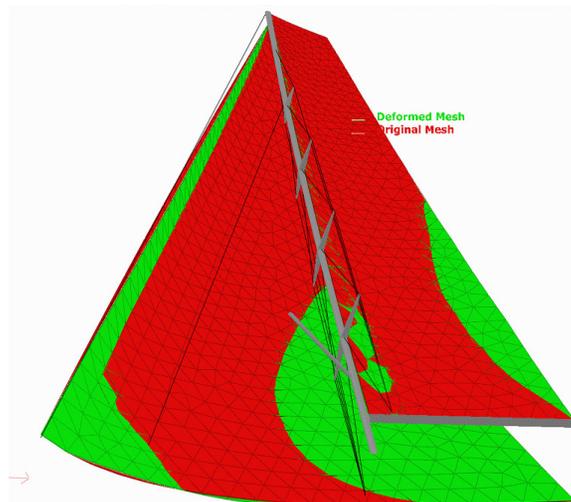
AzureProject's Advanced Aeroelastic Analysis tool lets the sails designer calculate the luff sag and mast/luff interaction, the flying sailshape, stress distribution, and corner loads for laminated sails.

The advanced analysis tool new features are:

- calculate the flying luff sag for jibs and genoas in upwind conditions, by setting the forestay tension
- evaluate the sail-shape for set mast bend
- set the corner trim, as applied displacement or load
- set halyard loads or head constraints freely
- Wrinkling of sailcloth.

The main benefits are:

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



**RigEdge Lite** is our new, unique and innovative software which enables yacht designers to rapidly **define** and **optimize** their **sailplan** and **calculate corner loads**.

This robust analysis tool quickly evaluates the sail force coefficients and corner loads.

The main benefits associated with using RigEdge Lite are:

- **It speeds up the sail design plan.** The powerful and integrated sail plan design and fast analysis features accelerates the decision process
- **Explore alternatives;** using robust design and CFD tools, it is possible to compare alternative sailplan performance and trimming conditions.
- **Communicate easily;** with graphics and robust plotting, RigEdge Lite supports the communication of the designer and their clients