



The forthcoming METS is, as usual, a very special event for SMAR Azure! WE will reveal a brand new version of AzureProject and Img2Des, officially launch the AzureAgent App and display RigEdge! And in this newsletter we share a preview of them, while Chris Owen tells us how he uses the analysis tools for his design work.

Please contact us ([info@smar-azure.com](mailto:info@smar-azure.com)) to schedule a meeting for a demonstration of our products or discuss our service!  
And DON'T forget to get a **free pass** to enter the METS!

**We look forward to meeting you all at our stand 01.275,**  
*Sabrina, Donald and Francesco*

To get a **FREE VISITOR PASS\*** for METS2017 [REGISTER HERE](#)

\*Online registration is FREE OF CHARGE ONLY BEFORE the 7<sup>th</sup> of November 2017.

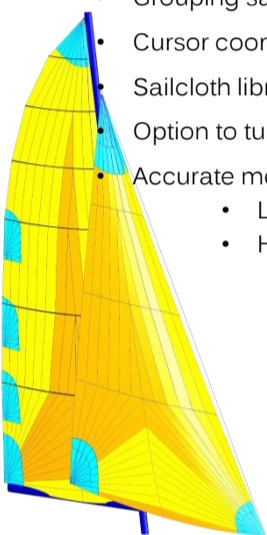
## AzureProject New release at METS2017!

**Azure PROJECT**

The brand new version includes innovative features to still simplify the manufacturing of sails, the design operations and supporting the designer in optimise every design.

### Among the new features:

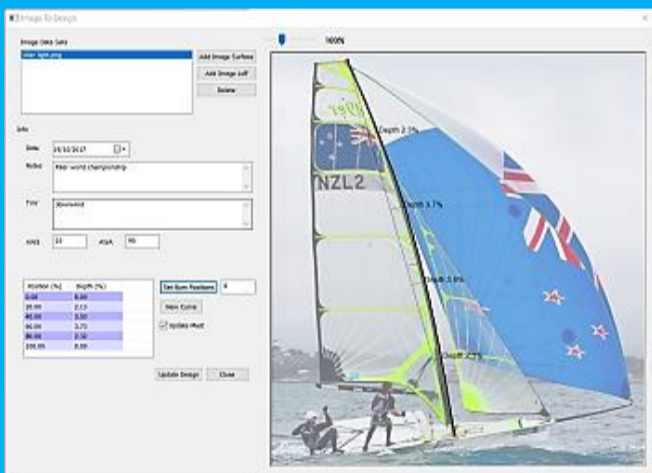
- Grouping sails in the project window
- Cursor coordinates in the design view
- Sailcloth library constantly updated with new material
- Option to turn seam lines off/on dxf file
- Accurate measurements:
  - Luff rope included in the luff perpendicular
  - Head in the finished lengths output



**AzureProject is the leading solution for the design of sails and fiber layouts. It offers highly intuitive tools to easily create, validate and modify any type of sail and fiber layout.**

[AzureProject demo – CLICK HERE](#)

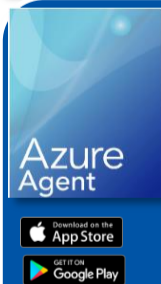
A brand new version of **Img2Des** will also be released! Now, it allows to measure mast curve from photos and import into design (see image below)



### AzureAgent app – NEW PRODUCT

The first app created to simplify recording rig measurements in a clear and intuitive way and transfer them directly into AzureProject. And for those measurements hard to capture, photos can also be attached.

**So no more mistakes or time wasted!**



## OUR SERVICES AT GLANCE

SMAR Azure offers expert professional services to help sail designers and yacht designers to design, analysis and optimise sails, sailplans and rig. We combine our integrated sail-rig-boat design technology, with advanced FEM/FEA (midas NFX software) and CFD Ransce tools.

SMAR Azure also offers custom software development to implement your new idea. Please visit us to discuss your needs with Donald at METS.



**NestFab** is a high-performance nesting tool fully integrated with AzureProject, which means AzureProject users can simply nest panels and patches in 1- click.

[Watch video demo LINK HERE](#)

[NestFab demo – CLICK HERE](#)

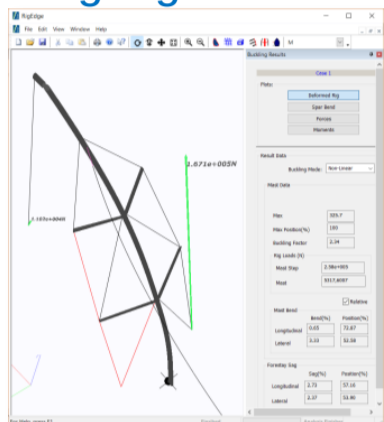
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## Rig buckling: how RigEdge solves it!

We are often asked if RigEdge is able to calculate buckling and how it is done!

RigEdge is still the unique rig design tool able to calculate tuning loads and rig loads, taking into account accurate sail loads calculated in given sailing conditions.



RigEdge is then able to calculate rig deformation as well as buckling via a non-linear structural analysis.

The results from the buckling analysis are an important feedback on the structural properties of the rig and will help the designer to reinforce the rig properly at the requested safety factor.

RigEdge includes two methods to calculate buckling: **the linear and non-linear buckling.**

The nonlinear buckling analysis method in RigEdge increases the sailing loads proportionally until the rig collapses. While also the linear buckling is available in RigEdge, we would suggest that, the non-linear buckling analysis estimates the structure failure more precisely than the linear analysis.

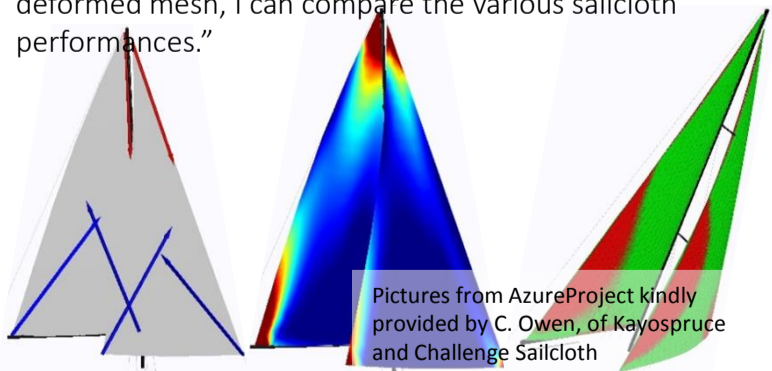
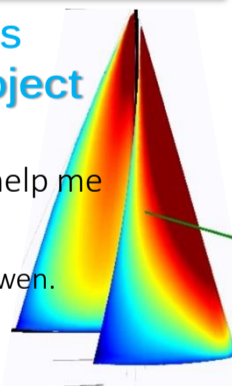
Available outputs of the nonlinear rig analysis are the buckling factor, the deformed shape of the rig before buckling, the compression, moments and curvature of the mast.

[RigEdge demo – CLICK HERE](#)

## Chris Owen shares with us how he uses the AzureProject analysis tools

“AzureProject has the right tools to help me in designing a fast sail-shape and select the right sailcloth” says Chris Owen.

Firstly, I use the centre of effort plot to compare two sail configuration designs to check which design develops higher speed” says Chris. Then he adds: “The structural analysis results are very helpful, as the corner loads provides information for hardware specifications and the von Mises stress for corner patches, orientation and size. And finally, with the deformed mesh, I can compare the various sailcloth performances.”



Pictures from AzureProject kindly provided by C. Owen, of Kayospruce and Challenge Sailcloth

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