

## IABSE Future of Design Conference 2017

## Optimization Workshop

**LimitState:FORM Quick Reference**

LimitState: FORM is a 3D structural optimization tool that identifies efficient truss layouts for user specified design problems. The software is designed to be very intuitive, but you might find the following helpful:

**1. Ribbon bar tabs**

The main tabs used in this workshop will be:

File	Open / save files
Design	Make edits to the problem geometry
Optimize	Set up and solve the design optimization problem

**2. Model navigation**

Rotate	Move the mouse while pressing the middle mouse button.
Pan	Middle mouse button and <i>SHIFT</i> .
Zoom	Middle mouse button and <i>CTRL</i> .

**3. Object selection**

Single click	Selects a face, edge or vertex.
Double-click	Selects a surface, edge chain or loop.
Triple-click	Selects a solid.




**4. View alignment**

To align the view to a particular (flat) plane on the model, select the plane with the mouse then right-click and choose *View > Plan View*.

To align the view to a particular Cartesian plane, click the appropriate face or arrow on the axis marker in the bottom left of the viewer window.

**5. Geometry manipulation**

To alter the geometry of the model, select the *Design* tab on the *Ribbon Bar* and use the functions there to make amendments. For example:

- To enter 3D mode, click 
- To pull a face, click 
- To move a solid, click 
- To split a 3D solid, click 