Femap Tip and Tricks: Element Visual Inspection

When Femap finishes meshing a model a brief report of the mesh quality is written to the Messages

pane. However, often it's desirable to visually inspect the worst elements of the mesh, and review their shape, and location in the model, an action which is not necessarily that easy to do with a solid model?

However, in Femap's interactive Meshing Toolbox there is a locator function, which can be used to locate problematic geometry entities – curves and surfaces – as well as elements. To switch on the Locator, first activate the Meshing Toolbox by

clicking the **Meshing** icon *(Mathematical Stress Licking Contexpension)* in the *Panes* toolbar, and click on

the **Toggle Entity Locator** icon **Or the** *Meshing Toolbox*. Select **Elements** as the *Search For* criteria and **Quality** as the

Search Method, and you will see all of the elements that fail the selected quality type and value.

Here Femap displays the transparent model, with the elements that failed the quality criterion highlighted.



Zooming up allows you to get a good view of the failed elements, and you can then make a decision based on the element shape and its location in the model whether or not it's necessary to improve the mesh. If it is, then it's easy to go back and use Femap's Meshing toolbox to interactively change some of the meshing parameters in this area and improve the mesh.

Watch the video of this Femap tip on YouTube.

Locator	×
Search For	Elements 💌
	Free Edges
Search Method	Quality
	Edge Length
Quality Type	Jacobian 💌
Max Allowable Value	0.8
	Show 115 Elements
Locate Options	
Show Options	