

LUNE DAVIES, 05/02/2021, TIME: 2PM
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ADVANCED STRESS + FEA M6X00420

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To ensure no errors have been generated during meshing, there are many checks that can be made. These include having the model size checked by an experienced engineer to checking for the number of the edges to duplicate surfaces. Errors such as duplicate or overlapping surfaces can be noticed when the model processor is called, i.e. it double the amount of elements has been entered then material will weight twice as much as expected. Once the material properties have been added, the loading and boundary conditions can then be entered.

b) ~~The pre processing stage is fundamentally seen as the setting up stage of the FE model. This stage is capable of assisting up to the processing of the FE model.~~

The processing stage is fundamentally when the FE model is prepared for assembly and solving the mathematical linear equations. This process is generally all undertaken by the software. However, failure to adequately complete the pre processing phase could result in assembly issues and errors being generated. This could be as a result of poor element quality, such as skewed or issues with aspect ratios. Additionally, an insufficient constrained model could generate an error, demonstrating rigid body motion as a result of external loads.