MESHING – what the reasons of problems such as lack of mesh generation and incoherent meshes on edges are and how to solve them

Set the iterative adjustment of FE Mesh in Job Preferences to have coherent meshes on edges

When a panel is not meshed check if it has the correct calculation model assigned (e.g. it is not a curtain wall)

Despite having the iterative adjustment of FE Mesh switched on but still there is the incoherent mesh error reported.

In many cases this is caused by inaccuracy in the geometry of a model.
You can use the detailed correction tool and adjust the model selecting one of the available options. In most cases it is suggested to start with adjustment to structural axes, planes and lines.

For a single panel the correction of its contour can also be done manually either to correct the position of its corners or remove excessive division points created along the edges as they influence generation of meshes. You can either use the properties of the panel
or by moving characteristic point of a contour (dragging it with the mouse)

For panels that still do not mesh correctly you can try to change the meshing parameters that are assigned to them. It is recommended to use size of the mesh element rather than number of divisions and have similar sizes of elements defined for neighboring panels. Try
to run regular meshing for the panels that you have problem with meshing if this option is switched off and switch it on if it is disabled.

You may be able to generate mesh for a panel that has not been meshed during the model generation of the whole structure after deleting the meshes from the panels that have common edges first and then running the local mesh generation for the ‘problem’ panel followed by the local mesh generation for the ones you delete meshes from.


In some cases you may just need to manually move a node after freezing the meshes to create coherent meshes


For panel with arches you may need to match the number of divisions of arches for neighboring panels


Remember to freeze meshes that you manually corrected so that the model generation not generates them again as they were created before your changes.