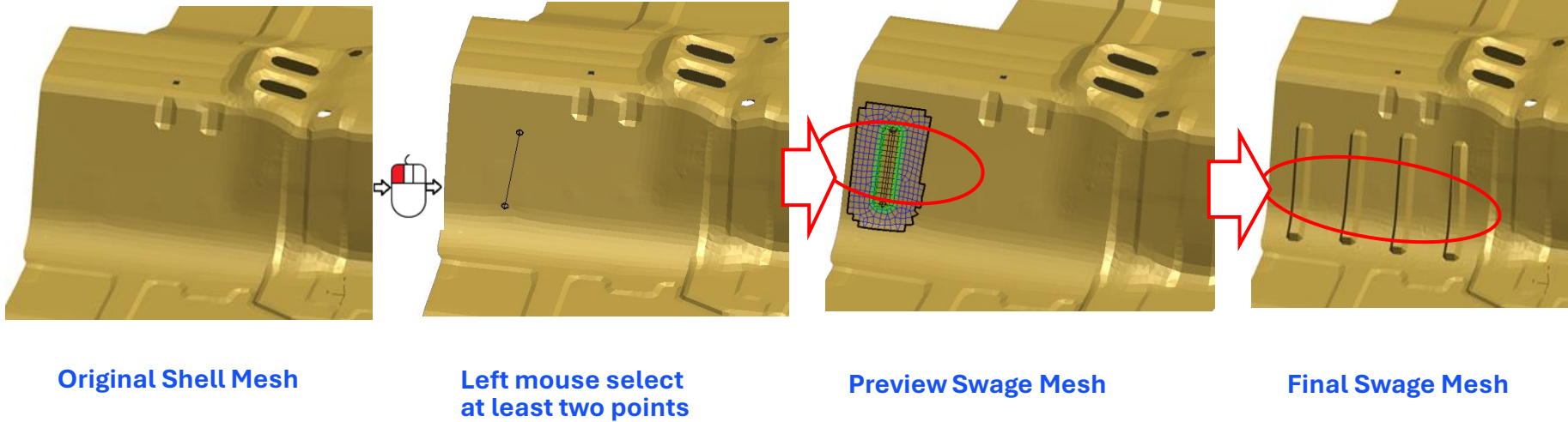


Swage Meshing Tool



Mesh Tools -> Swages

The swages tool allows you to easily create swages/beads in shell meshes.



Swages Panel

Undo the created swage mesh and the remeshed original surface

Save the panel inputs and options as PRIMER preferences

New Node/Shell labels:

- Highest+1 in model
- Highest+1 in layer
- Start at label input

Shape at SIDE ends :

- Chamfered
- Slanted
- Vertical

Mesh SIDE surface elements :

- Structured
- Free Mesh

Remesh input parameters

DismissApplyRestartHelp?

Select swage points on shells

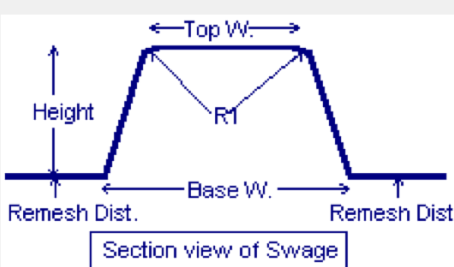
SwageShell pts. ▸Pick pts. ▸Sketch

UndoReverseAuto UpdateOutline

Save SettingsPID 1Auto PID

New Nodes: ▸Highest+1 in layer ▸

New Shells: ▸Highest+1 in layer ▸



Base Width80.0

Top Width60.0

Height-60.0

R1 :20.0

Auto El. Size5.0

Element Pitch1.706204

Top El. size ▸10.0

Side El. size ▸10.0

Remesh Len.10.0

Side Mesh : ▸Free ▸

Remesh Dist.40.0

Break Angle :20.0

Add RemeshRem. Remes

Pick Pts. : ON/OFF swages points pick.

Sketch : Preview the Swage mesh.

Reverse : Reverse the direction of swage mesh. (Default is 'along the normal' of the original mesh)

Outline : Show only Outline or Complete Swage mesh

Auto Update : Auto update the preview of swage mesh for change in mesh parameters and options.

PID : PART Id to create swage elements.

Auto PID : PART Id for first shell picked.

Swage mesh size parameters

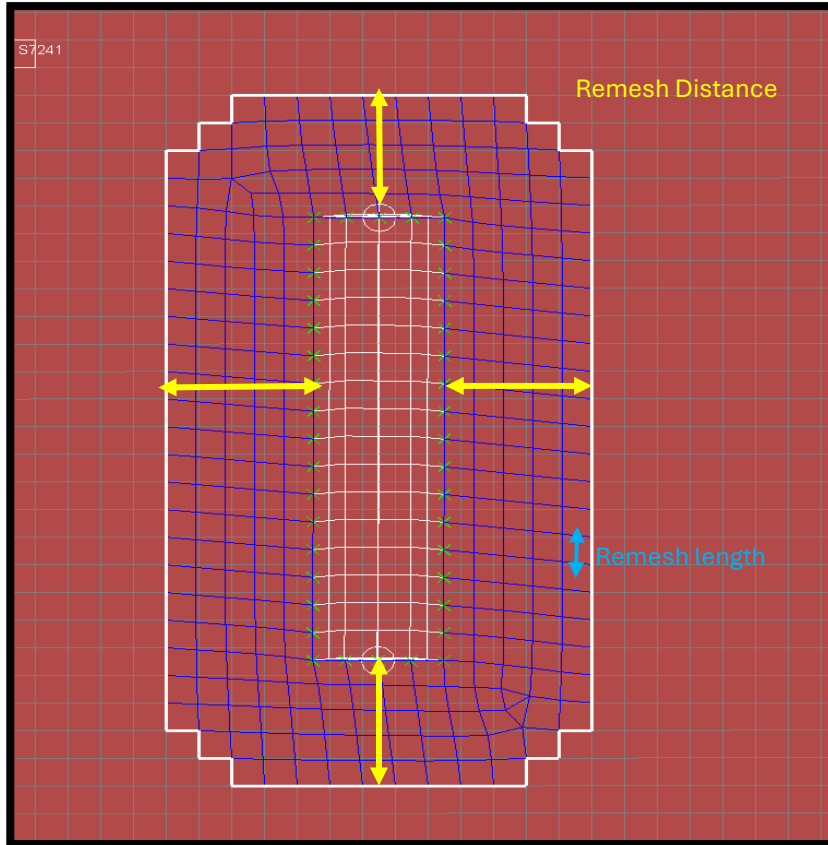
Elements size input parameters

Swages element sizes and remesh parameters

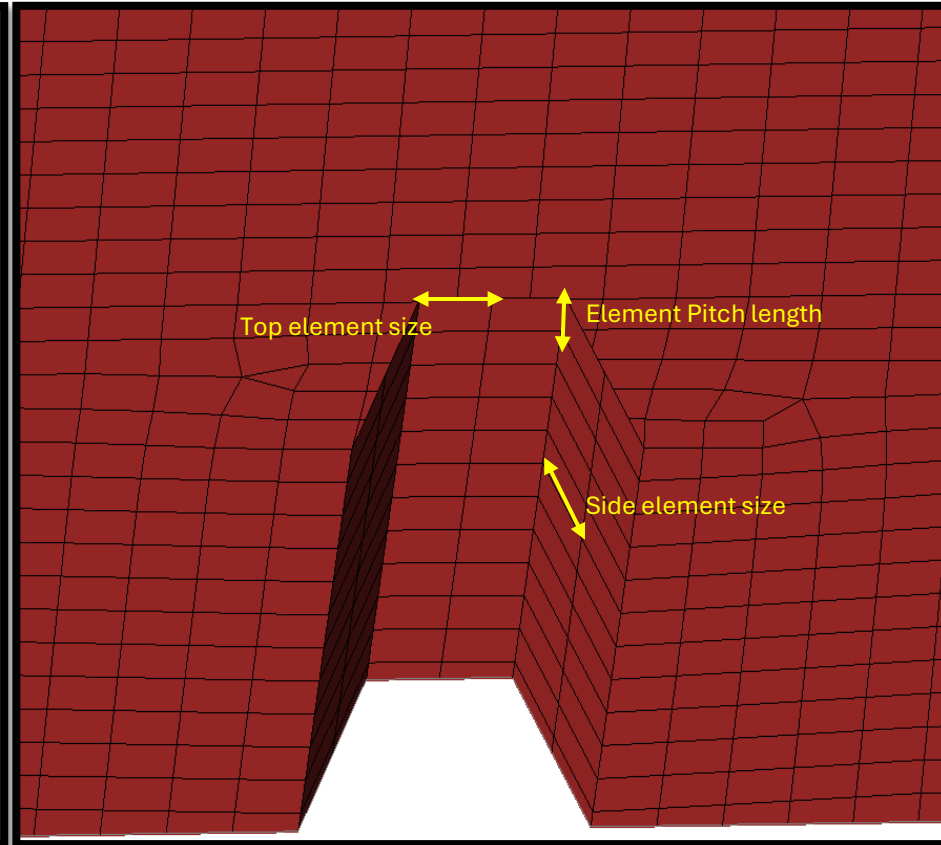
- **Auto El. Size** : All mesh elements will have a target size equal to “average” element size of original mesh surface.
 - Once this option is active, all other element size inputs are de-activated.
- **Element Pitch** : Element size “along” the swages path.
- **Top / Side Size** : Size of elements across the TOP or SIDE surface of the swage mesh.
 - **Element Size**: Size of elements along the surface.
 - **Element Count**: Number of elements along the surface
- **Remesh Distance** : Distance to remesh the original mesh outside the base of swage mesh.
- **Remesh Length** : Element size for the remeshed elements on the original mesh surface.
- **Break Angle** : Break angle to restrict the remesh of original mesh surface, based on original shell normals.
- **Add/Remove Remesh** : Shows a list of shells from original mesh surface to Add/Remove for Remeshing.



Swages element sizes and remesh parameters



Preview of Swages mesh



Cut section of Swages mesh
(Shows the mesh with Element Pitch and with two elements each across the TOP and SIDE surfaces)

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