THERM U-factor Surface Tags and Glazing Options

For some models, it is necessary to edit the glazing system in order to accommodate the frame configuration. When a glazing system is imported, the values entered in the Insert Glazing dialog box determine how the program will automatically apply the U-factor surface tags to the innermost glass layer of the glazing system.

If the geometry of the glass layers is then changed after the glazing system is imported, the automated U-factor tag generation can become compromised, and generate the wrong tags.

Therefore, there are some rules that need to be followed in order for the edited glazing system to maintain the appropriate U-factor surface tags when the boundary conditions are regenerated, as well as when there are multiple glazing options defined for the model, so that each glazing option will have the correct U-factor surface tags.

Inner Glass Layer "index" points

The two points at the bottom of the inner most glass layer in a glazing systems are the points that the program uses to generate the U-factor surface tags, based on the input in the Insert Glazing dialog box.

In order to maintain the correct U-factor surface tags settings, please follow these rules for those "index" points.

- **Never delete them**; if they are deleted the U-factor tags will not be correct
- Only move them
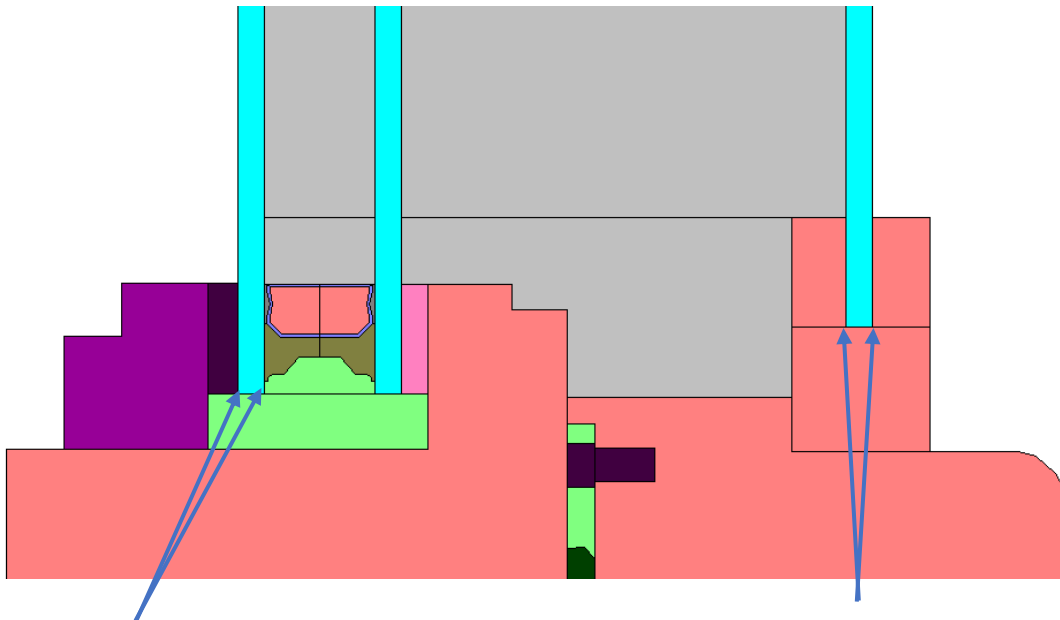
Unless special U-factor tags will be applied on the outer most glass layer, the points on that layer
- Can be deleted
- Can be moved

The two bottom points on the inner most glass layer are "Index" point for the U-factor tags.
- **Never delete them**
- Only move them

Figure 1. Never delete the bottom left and right points of the innermost glass layer.

There are two options for editing the length of the glass layers in a glazing system

- Move and/or delete points on the **outer most** glass layer

    o Insert the glazing system with the locator based on the correct position for the inner most layer, and then edit the outer most layer as needed to correctly align with the frame.

- Move, but don't delete, the bottom two points on the **inner most** glass layer

Move or delete points on the outer-most glass layer

This is the case that will result in the least problems if it can be implemented for a given model.

Set the locator so that, when the glazing system is inserted, the inner most glass layer will be in the correct position

Position the Locator so that when the glazing system is imported, the inner most glass layer will be in the correct position and will not need to be edited

Locator
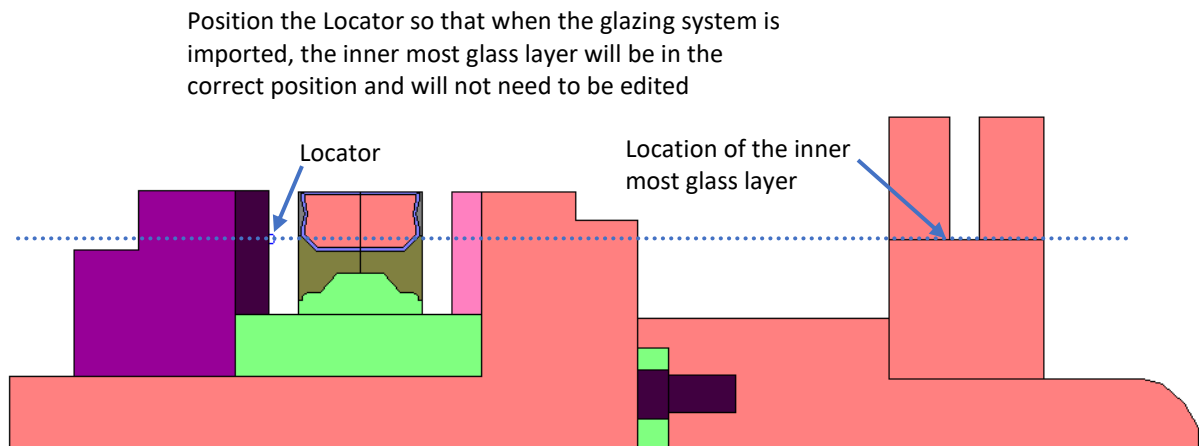
Location of the inner most glass layer

Figure 2. Position the Locator so that the innermost glass layer will be in the correct position in the frame and not need the glass layer points to be moved..
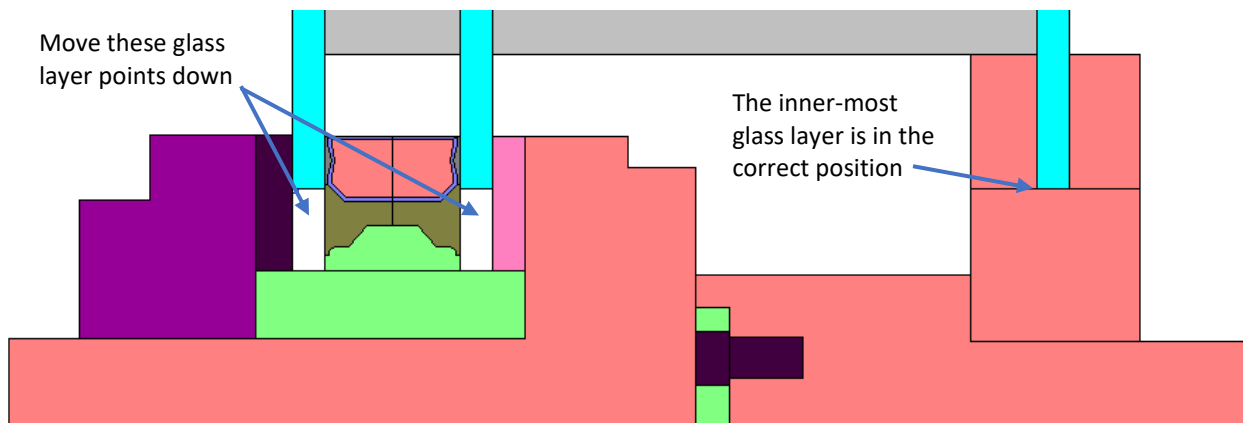
Move these glass layer points down

The inner-most glass layer is in the correct position

Figure 3. Move the outer glass layer points as needed.

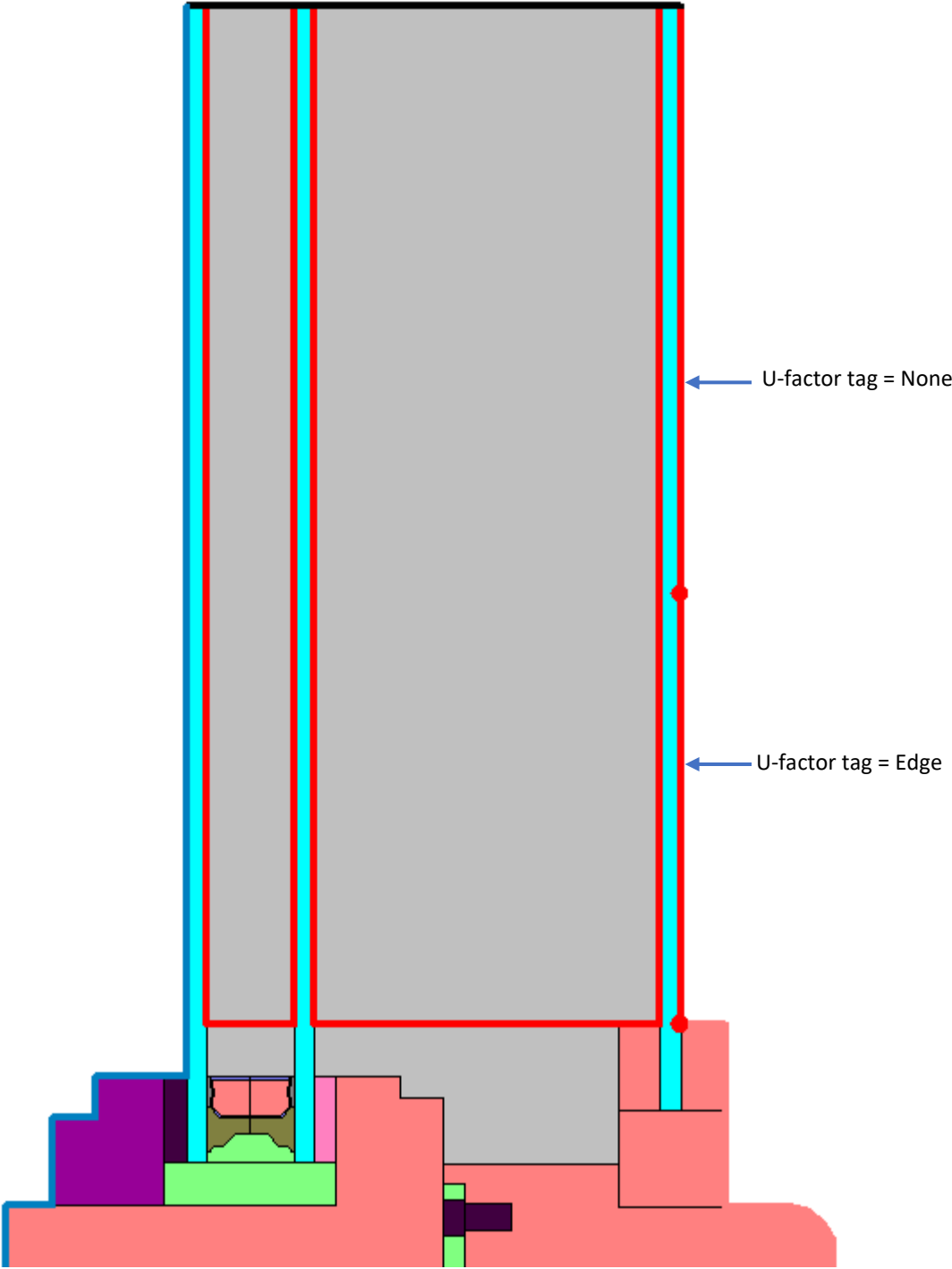U-factor tag = None

U-factor tag = Edge

Figure 4. As long as the innermost glass layer index points are not deleted,
THERM can automatically determine the correct U-factor tags for the inserted glazing system.

Move but don't delete, the bottom two points on the inner-most glass layer

This option is less desirable as it will potentially leave extra points in the glass layer. This is generally not a problem, but it is better to have as few points in any polygon as necessary.
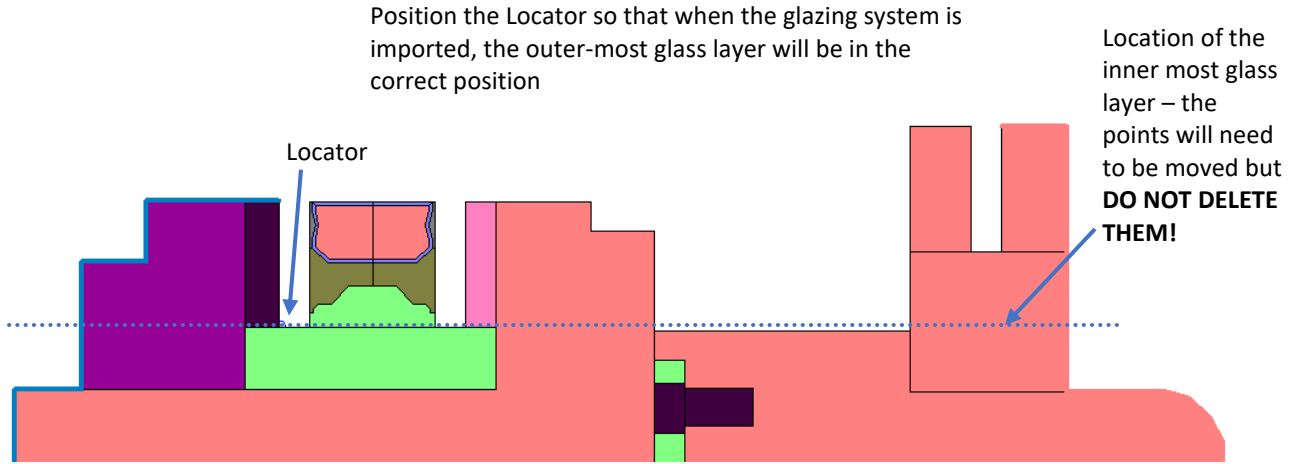
Position the Locator so that when the glazing system is imported, the outer-most glass layer will be in the correct position

Location of the inner most glass layer – the points will need to be moved but **DO NOT DELETE THEM!**

Locator

Figure 5. Position the locator so the glazing system will be positioned to have the outer most glass layer in the correct position.

Insert the glazing system

The innermost glass layer overlaps the frame.

Delete these points
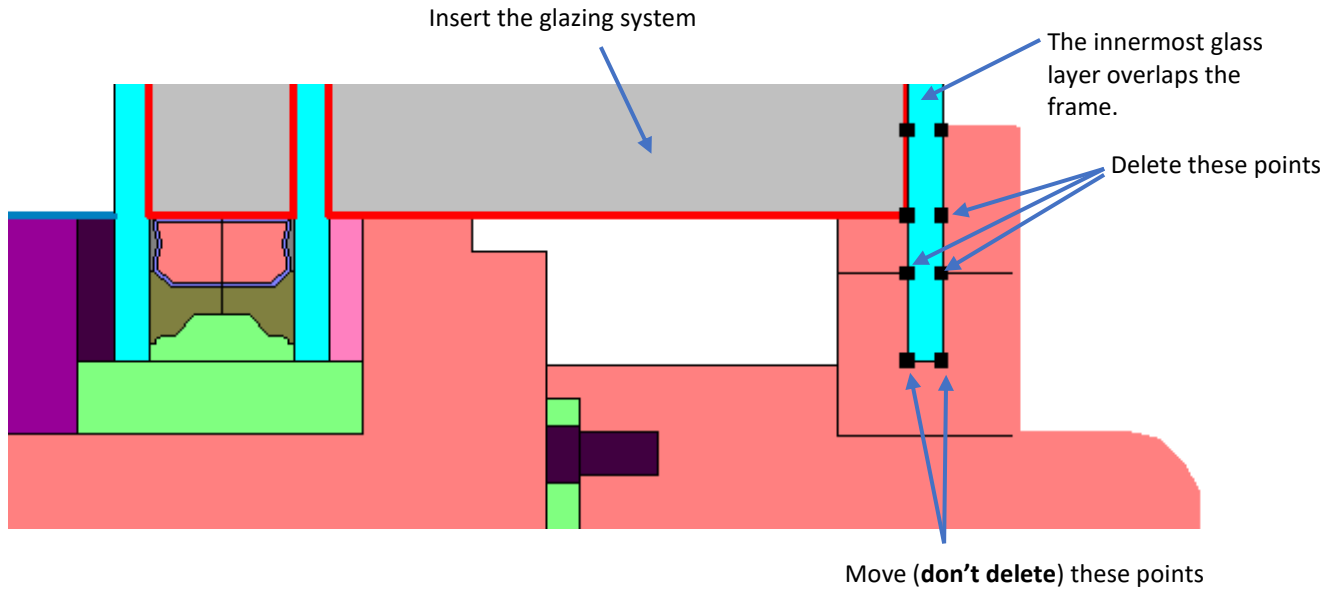

Move (**don't delete**) these points
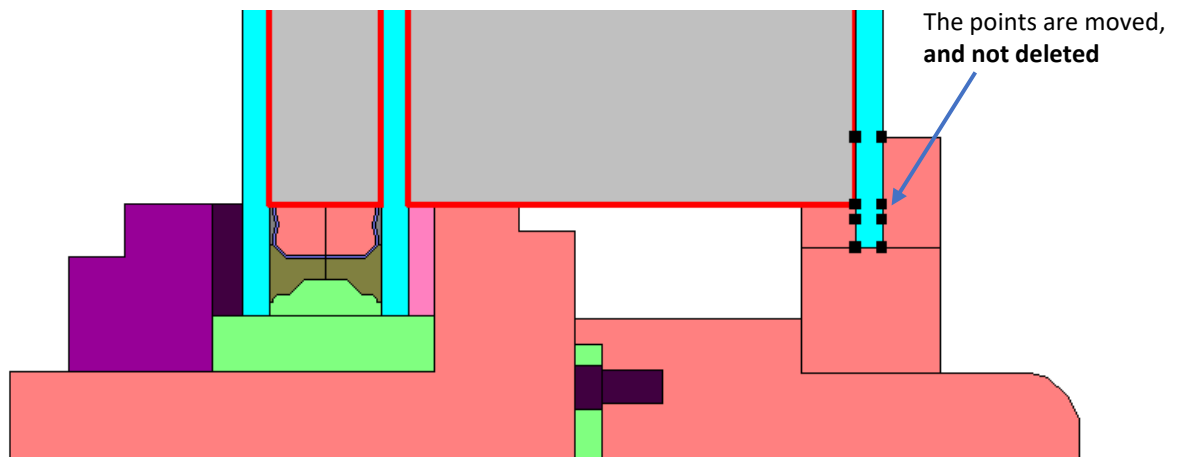
*Figure 6. Move, **but don't delete**, the points on the inner most glass layer*

Figure 7. Final location of moved points