



Structural analysis of hardware on frames for fenestration industry



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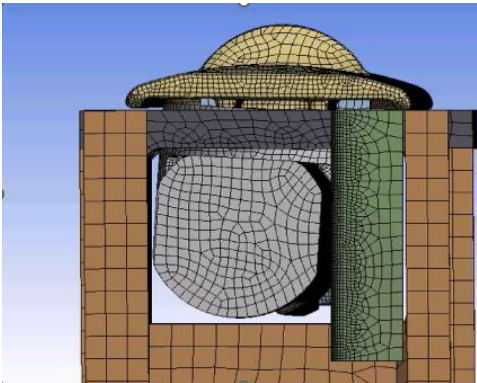
Structural Analysis and effect of hardware on frames

Hardware Analysis:

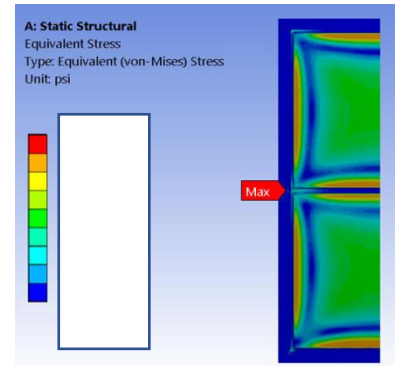
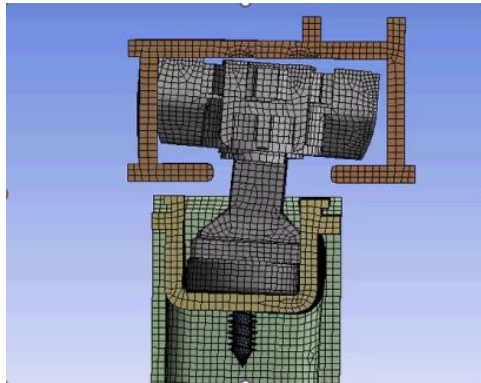
- In doors and windows hardware components that comes in contact with the frame are prone to failure.
- Localized areas were studied in detail to capture stresses and material behavior.

Benefits: Contact stresses can be determined, and remedial actions can be simulated before building a prototype.

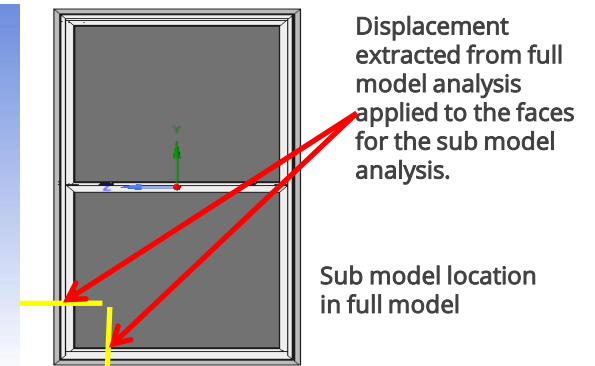
Tilt latch Sub model Analysis side View



Pivot Bar Sub model Analysis Top View



Full model



Displacement extracted from full model analysis applied to the faces for the sub model analysis.

Sub model location in full model

Sub model with pivot bar

Pivot Bar Sub model Analysis

