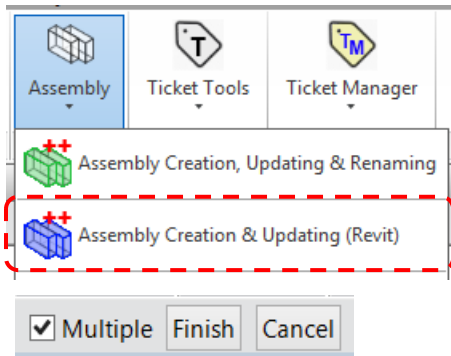


Assembly Tools: Assembly Creation & Updating (Revit)



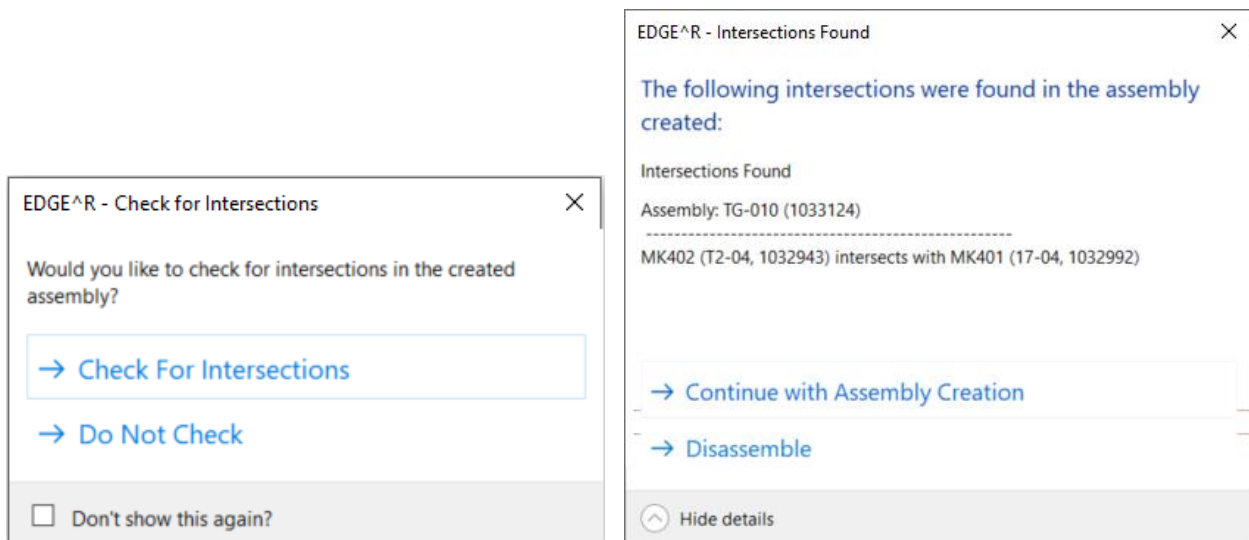
Programmed Result of Tool:

This tool will perform a custom interference check using a user selected structural framing member and add all embedded elements to an assembly. Specific parameters are also copied and applied as well, including: ASSEMBLY_MARK_NUMBER, ASSEMBLY_CONTROL_NUMBER, and WEIGHT_PER_UNIT.

Steps to Perform tool Operation:

The user can preselect a structural framing member (or multiple members) and the tool will perform its operations on each of the selected structural framing members one after the other until all have been processed.

- 1) User clicks the Assembly Creation, Updating & Renaming icon.
- 2) If no structural framing members have been preselected, the user selects the structural framing members to perform the assembly operation upon.
- 3) The user is asked if they would like to check for clashing elements within the newly created assembly. (see screenshot below on the left)
- 4) If the user chooses to check for clashing elements and clashing elements were detected, the offending elements will be highlighted and listed to the user. The user is then prompted to disassemble the assembly or continue with assembly creation. (see screenshot below on the right)
- 5) **Once the assembly has been created, the user should review the created assembly to verify that all desired elements have been added and not omitted due to modeling issues or unforeseen conditions not picked up by the code.**



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Known Limitations:

- Only the elements that meet all the criteria below will be considered during the clash detection process:
 - Must belong to the Specialty Equipment or Generic Model category
 - MANUFACTURE_COMPONENT contains one (or more) of the following terms:
 - REBAR
 - EMBED
 - LIFTING
 - STRAND
 - WOOD NAILER
 - PATCH
 - MANUFACTURE_COMPONENT does not contain both REBAR and SPIRAL
 - Family Name does not contain CONNECTOR_COMPONENT
- Element's having a MANUFACTURE_COMPONENT that contains RAW CONSUMABLE will be treated as whatever their parent family is during the assembly clash detection process.
- Clashes of 1/32" or less may not be detected.
- This tool performs several operations in succession on each assembly and the model components added therein. The most important process to be performed is the use of custom interference checking to determine the elements to be included in the assembly. For the interference checking to operate as designed, all elements should be modeled to represent a finished product and should therefore create a clash with only one structural framing element. If elements are modeled such that an interference condition is created with more than one structural framing element, then the results of the tool may be incorrect and/or an error might be thrown. Multiple clashes for elements can be detected using the Admin->Embed Clash Verification Tool.
- Some parameter values are also updated during the assembly process and therefore may throw an error if these parameters are problematic. See BOM Product Hosting and Construction Product Hosting tools
- If an interior element located within a cavity or a coplanar element is applied to a surface, it will not create clash situation. The element then must include a nested Connector Component to have a clash detected.
- For Brick Veneer walls or any other Wall category elements to be added to the assembly, its "IS_FINISH" yes/no parameter must have a value of yes.

