

Solibri Model Checker

for Better Quality & Higher Accuracy



Introduction to Effective Issue Analysis Process

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Introducing an Effective Issue Analysis Process by using the Automated Section Box

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The latest innovation from Solibri for Easier Analysis

Solibri's expertise is model-based Quality Assurance and Quality Control. To be more precise, we want to ensure the required information is available, can be trusted, and consistently follows set criteria and guidelines (e.g. building codes). To achieve this, we use rules to analyze information associated with spaces and elements in the models. Additionally, we have developed innovative ways to verify and validate information, or the absence of it.

Solibri has essentially established the Model Checking market by developing technology that employs excellent rulesets for Quality Assurance and Quality Control. Spatial Coordination or Design Version Management (e.g. Model Revision Comparison) are examples of some of the many available rules that deliver high value and tangible benefits, that are widely appreciated throughout the AEC market.

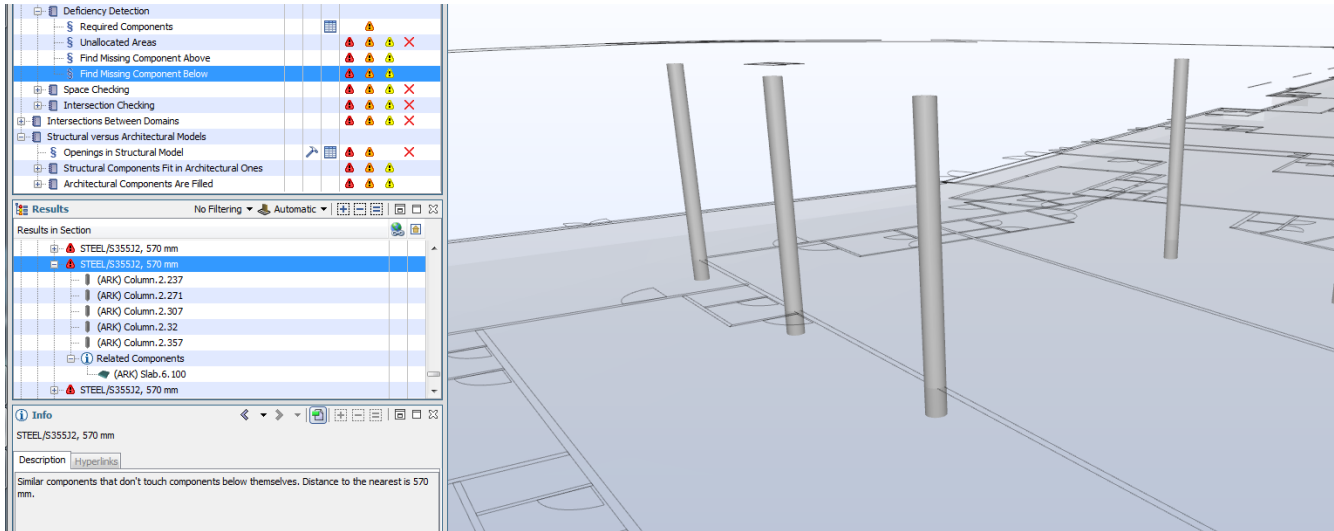
Finding issues is easy with our rule-based approach. For us, quality control really means that you also need to find ways to communicate the findings to persons or organizations in charge. Solibri has already developed many innovations in this area but it is our mission to do more for our customers. We have now developed a capability to automatically generate a section box around the 'problem' area.

The Process of "Analyzing the Issues"

Beginning with our fifth version, released several years ago, Solibri Model Checker (SMC) has had a unique and powerful feature called Automated Issue Navigator (AIN). This makes it possible to automatically isolate relevant components and clearly show the rule results.

For example, we run the Deficiency Detection rule that checks for components that are not attached or supported below (e.g. hanging in the air).

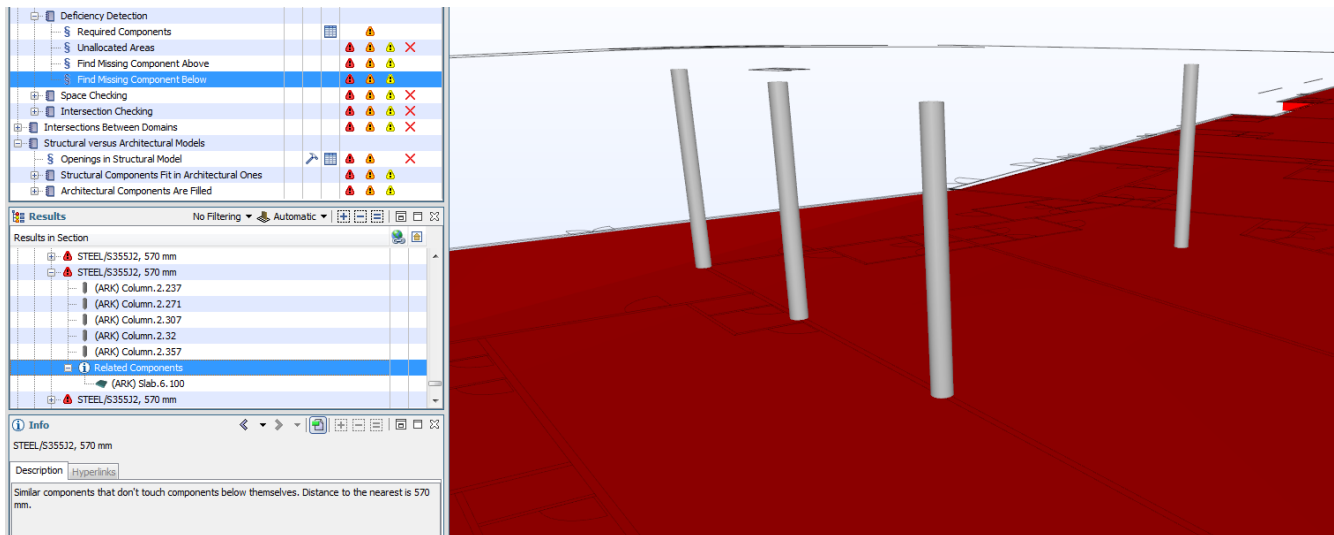
When clicking rule results, the Automated Issue Navigator shows the components that are not supported that are associated with the footprints of walls (generated automatically by SMC) for easy location. Rule results inform us of "Similar components that don't touch components below themselves. Distance to the nearest is 570 mm (22 inch)."



Results of Automated Issue Navigator

Many of the rules have an option to show related components. This will make more components visible and in many cases this gives a better perspective view. In this case, slabs below in the close perimeter and related to the problem are shown.

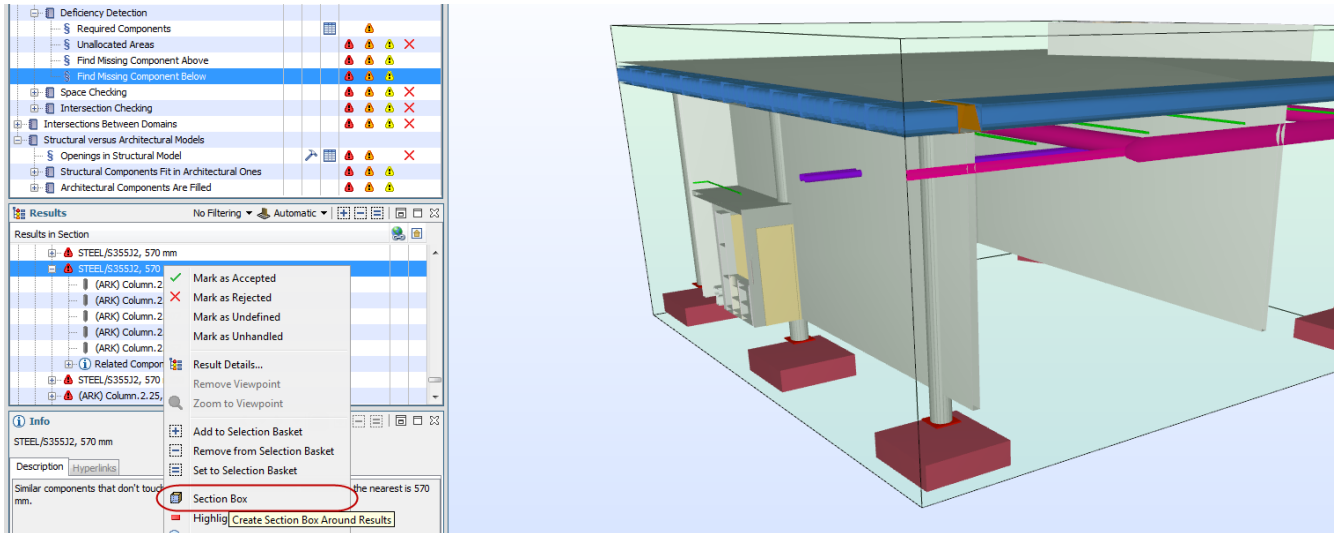
It's relatively easy to miss the fact that columns actually go thru the slab.



Rules have a reasoning mechanism to show related components (Note columns in this case go thru slab)

Automated Section Box - Wrapped Around Issues

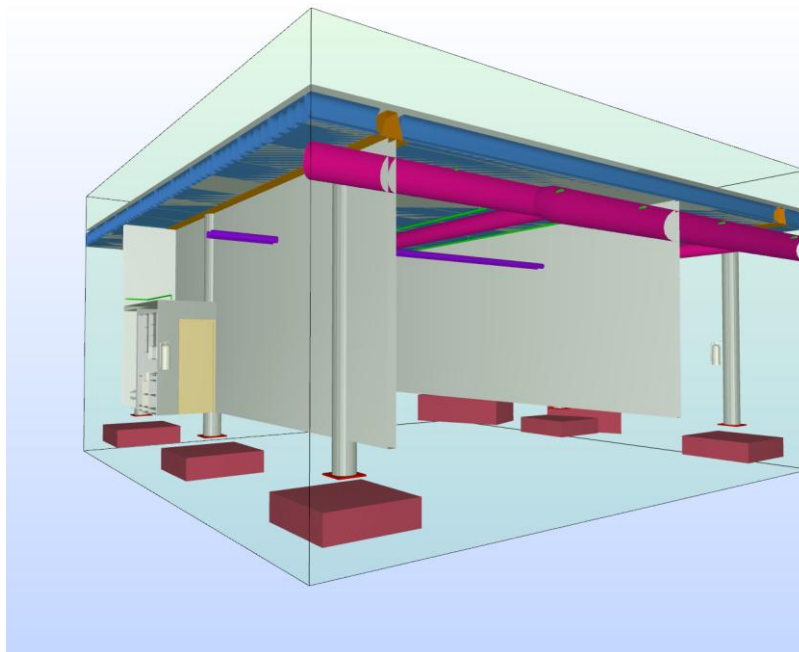
The latest Solibri innovation is to use a section box that is automatically generated around the issue components within the model. Now we can focus on the issue and easily see the whole situation.



Results when using Automated Section Box

Holding the shift key down and using the mouse wheel will allow you to adjust the size of the box in all directions at once. You can of course choose one of the sections separately. Now, turning the section box will show an optimum angle for visualizing the results.

We can now easily see that columns go thru the slab but don't reach the foundations.



Results when using the Section box

Section Box

The above example shows how powerful the Automated Section Box is when used together with other available visualization features. The Section Box can also be used manually (the traditional way) in the 3D view by selecting the components that will be on the edges of the box.