SOLIBRI MODEL CHECKER – STREAMLINE YOUR WORKFLOW

- Advanced Clash Detection & Management: Automatically analyze and group clashes according to severity. Find relevant problems quickly and easily. Investigate the quality of your BIM files.
- Deficiency Detection: Prevent issues in advance. Use SMC and its logical reasoning rules to search for components and data missing from the model.
- Verify Matching Elements in Architectural & Structural Designs: Use SMC to locate flaws and exceptions in models made by different design teams. Avoid expensive rework by knowing both models match.
- Managing Change Orders or Design Versions: Manage and track changes between two design versions of the same model. Save time with easy visualization and verification of model changes.
- Instant BIM Data Mining: Be assured on the quality of information in BIM designs. Then use SMC for easy and instant Information Takeoff. Use multiple report templates that best suit your user role or create one yourself. Measure spaces and materials on the fly and share with others.

‘What good is data if you don’t know its accuracy, completeness, or compliance with an established requirement?’

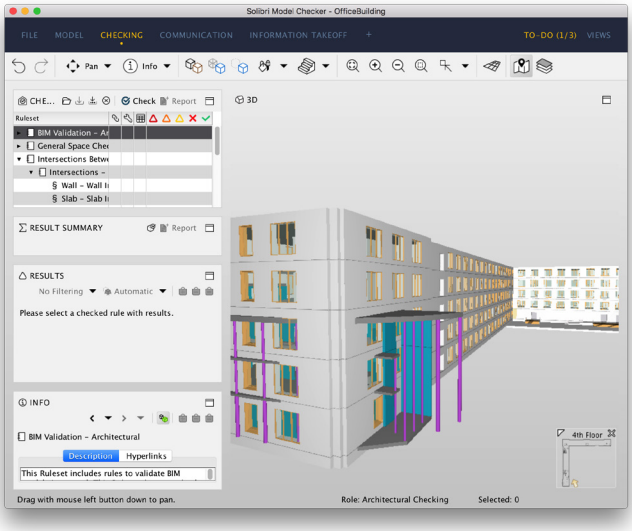
Today there is more data than ever in Building Information Models (BIM), resulting in a very real requirement to manage, verify and validate the data, in addition to the model itself. This is where Solibri Model Checker (SMC) comes into its own. Think of SMC as your ‘Swiss Army Knife’, with each blade addressing a different BIM use case. There’s no need to buy a different technology each time a new requirement is identified. SMC will define and support the Quality Assurance and Quality Control (QA/QC) processes in your business.

SMC finds faults before a single brick is laid. It defines QA/QC in the workflow for all team members – designers, construction companies and building owners. By managing quality, you can be confident you save time, money, the environment and maintain a competitive edge within your industry.

SMC and BIM Use Cases

If you are modeling to support any of the requirements below, SMC should be part of your workflow.

- COBie
- LOD
- Model QA/QC
- Code Compliance (AutoCodes)
- Owner Space Audits
- Coordination
- BIM Guidelines & Requirements
- Risk Mitigation
- BIM Validation
- Estimating
- Model QA/QC – Model Comparison



Keys to success

1. ROLES – There are three key concepts, or elements that serve as the foundation of SMC. They are Roles, Rules and Classification. One benefit that really sets SMC apart from any other application is the ability to establish a workflow to support many possible BIM-related functions. Whether your day is focused on designing or reviewing, with a focus on Code Compliance, Coordination, BIM Validation, Estimating or other requirements of a BIM Execution Plan, SMC can be tailored to support you. We do this by making it possible for you to either select your role from a supplied listing, or create a custom role. If you have chosen from the list we provide, you will also find we have identified some of the rulesets that are related to that role. This will save you considerable time and provide an environment that is consistent and you have set a new level of effective QA/QC for your organization.

2. RULES AND RULESETS – Rulesets are normally aligned with the specific types of checks that the user wants to apply on a frequent basis, and once established they are at your fingertips, no need to search for them.

Rulesets and the templates that allow you to modify the actual checking variables are at the core of SMC. The range of checks that you can choose from is extensive and really allows you to look at your BIM from multiple perspectives. The way to best understand the hierarchy of checking is as follows: Think of Rules as Topical Areas (i.e. QA/QC, Energy, Safety, Code Compliance, BIM Validation, Coordination, etc.). Then there are templates within those topics that allow you to set the parameters for your specific 'check' (i.e. allowable distances between objects, paths of travel, data values, turning radius, etc.). Then the templates essentially 'roll-up' into what we call 'rulesets'. These rulesets can be project specific, team specific or saved for any type of usage you desire. Once created, they can be saved and/or shared with others within your project team or organization, saving them tremendous amounts of time and ensuring that all of your checks will be applied with an unprecedented level of consistency.

3. CLASSIFICATION – Classification within SMC makes it possible to define spaces and components both manually, and automatically. Classifications can be used in rules to check components or requirements. In case you want to use a different classification for building elements (e.g. Uniclass instead of Omniclass) you can do this on the fly with classification rules. There are also classification rules for ANSI/BOMA etc.

Information Takeoff (ITO) – with Classification

This is a very powerful combination, and one that could dramatically impact your workflow. It is possible for you to create a classification and ITO structure one time, and continue to reuse it indefinitely. You can use the classification capability to query the model for a wide range of information, and to gain flexibility to work very efficiently with data from multiple sources. You may also use ITO to visually analyze information in the model.

Mining and Managing Model Data – Using ITO

SMC gives you access to the data that you need. Rather than providing a limited capability in the form of Quantity Takeoff, where the focus is primarily (or even solely) on numbers, we want to give you the ability to 'mine the model' for any data that might be valuable. We accomplish that with our ITO approach to accessing, organizing, filtering and visualizing the data that accompanies the model geometry.

SMC is truly a different analytical application. By applying rules-based checks, you are able to verify, validate and analyze the way the model has been authored, as well as the data that is being carried within the BIM. You are actually measuring the quality of the model, against a set of specifications, requirements or design criteria. And, if your requirements change, it is as simple as changing a variable in a template, and you are applying an updated check within minutes.

Go to solibri.com to find out more how SMC can help you in your particular workflow role.