



# Getting Started with Solibri

Introduction to Basic Functionalities

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### Getting Started with Solibri

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## 1. Welcome to Solibri!

## 1.1. Solibri Products

There are some differences between the functionalities you can perform with Solibri Anywhere, Site and Office. Below is a simplified table of the different features of the software and how they can be used in the different product versions:

**Table 1. Solibri Product Features** 

	Solibri Anywhere	Solibri Site	Solibri Office
Viewing models (IFC & SMC)	<b>~</b>	~	~
Combining multiple IFCs	<b>~</b>	~	<b>~</b>
Commenting issues	<b>~</b>	~	~
Creating issues	<b>~</b>	~	<b>~</b>
Exchanging issues with BCF Connector	<b>~</b>	~	~
Using markups & dimensions	<b>~</b>	~	~
Using classifications	<b>~</b>	~	~
Creating classifications		~	~
Taking off quantities & more		~	~
Checking models			~
Customizing rules			~

## 1.2. System Requirements

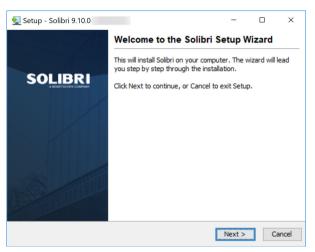
Recommended system requirements for Solibri are:

Processor	Intel® Core™ i7, AMD Ryzen™ 5 (or better)
Operating System	Microsoft® Windows® 10 or later; macOS Mojave or later
Graphics Card	High performance graphics card with OpenGL version 3.3 support or better. Preferably NVidia® GeForce GTX 1060 or AMD® Radeon™ RX 570 or better. Intel cards not recommended
RAM	16 GB RAM, preferably more
Hard disk	Several GB of available hard disk drive space is recommended
Mouse	Wheel mouse or similar functionality

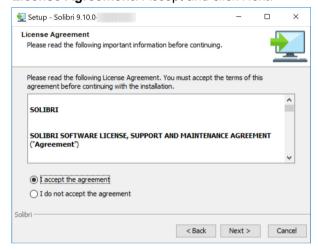
## 1.3. How to Install Solibri Office and Solibri Site

To install Solibri:

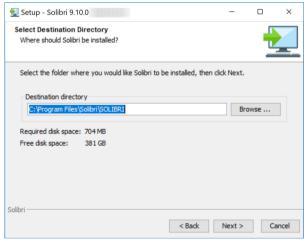
- 1. Go to the Solution Center and sign in with your credentials.
- 2. Select Solibri Office/Solibri Site from the list of products and select the latest version from the drop-down menu.
- 3. Open the file and follow the installer instructions.
- 4. **Language:** Select your language and click *OK*.
- 5. The Solibri Setup wizard opens. Click *Next*:



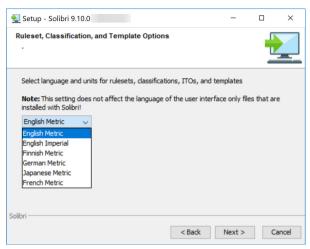
6. License Agreement: Accept and click Next:



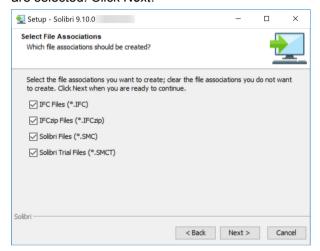
7. **Destination Directory:** Select the default directory. and click *Next*:



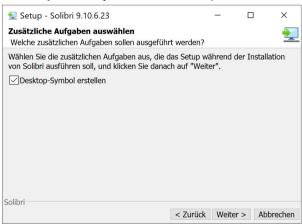
8. **Ruleset, Classification and Template options:** Select the language and units you wish to use and click *Next*:



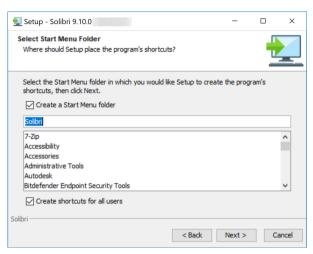
9. **Select File Associations:** Select the file associations you wish to create. By default, all the options are selected. Click *Next*:



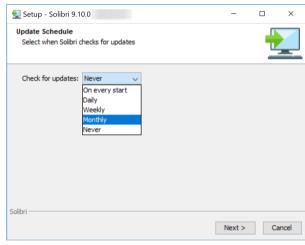
10. **Desktop icon:** By default, a desktop icon is created. Click *Next*.



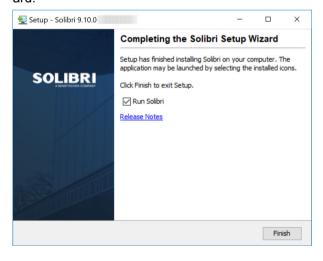
11. Start Menu Folder: By default, a start menu folder is created. Click Next:



- 12. The software is installed.
- 13. **Update Schedule:** We recommend that you check for updates regularly. Select one of the options in the drop-down menu and click *Next*.



14. To complete the installation, click *Finish*. By default, Solibri is opened after you close the setup wizard.



## 1.4. Launching Solibri

To launch Solibri:

- 1. Double click the Solibri icon on your desktop.
- 2. A sign-in window opens:



Enter your email and password. Click Sign In.



#### ΤΙΡ

If you wish to save your credentials, mark the Remember Me checkbox.

3. The product selection dialog opens:



Select the product and click Continue.



#### TIP

If you wish to save your selection, mark the Remember This Next Time checkbox.

4. The selected product is launched.



#### IMPORTAN'

If you try to open a product and you don't have a license to it, you get a warning message. Click *OK*, Solibri Anywhere is launched instead.

In order for you to use the latest version of the product, the administrator needs to assign that version to you.

## 2. Solibri User Interface

## 2.1. Solibri User Interface - Layouts

Solibri has five default layouts: File, Model, Checking, Communication and Information Takeoff. The layouts include default views, but you can add more views to the layout if needed. Some extensions or roles may add further Layouts to the interface.



#### NOTICE

Please note that not all of the functions in Solibri Office are available in Solibri Site or Solibri Anywhere.



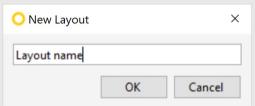
#### TIP

You can also add your own layouts to Solibri:

1. Click the + symbol on the layout bar:



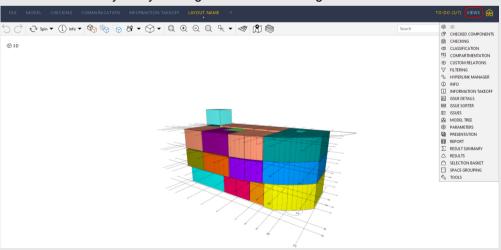
2. A dialog box opens. Name your layout and click OK.



3. The layout is added to the layout bar:



4. Add views to the layout by clicking Views and selecting from the list:

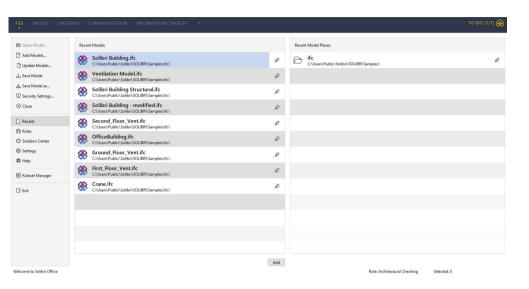


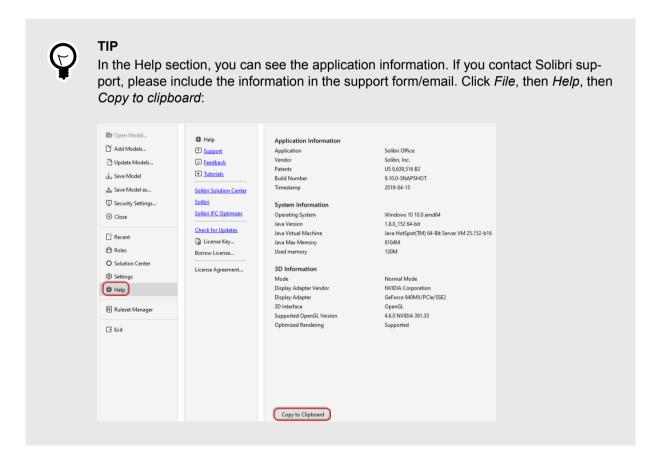
If you want to edit the name of a layout or remove it from the Layout toolbar, right click on the name and use the shortcut menu.

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#### 2.1.1. The File Layout

When Solibri starts, the Recent menu is shown as default. In the Recent menu, you access the 25 most recent projects/models and locations. In addition to Recent items, you can also access Roles, Solution Center, Settings and Help. If you are a Super User, the Ruleset Manager will also be visible.



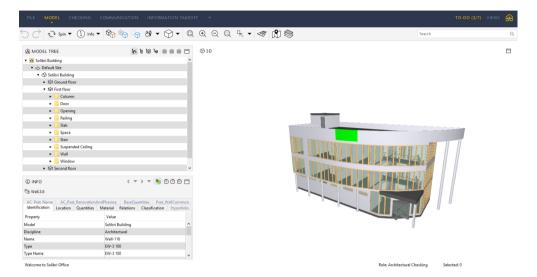


#### 2.1.2. The Model Layout

The views in the Model layout contain the basic tools for navigating and visualising the model and reading the model data. The Model Tree view shows the structure of the model in a tree hierarchy from project level down to component level. The Info view shows the detailed properties of a selected com-

ponent. The 3D view shows the geometry representations of the model, allows to navigate within the model, and do visual markings and notes.

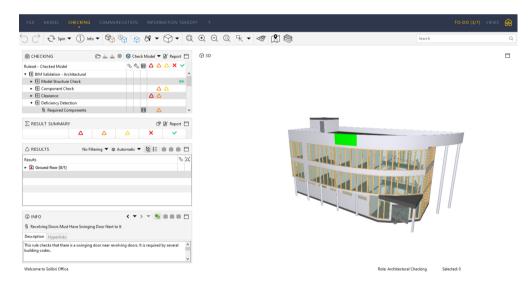
Default views: Model Tree, Info, 3D.



#### 2.1.3. The Checking Layout

In the Checking layout, you can check the model or selected components against rulesets and rules and inspect the results. You can also create issues for communication.

Default views: Checking, Results, Results Summary, Info and 3D.

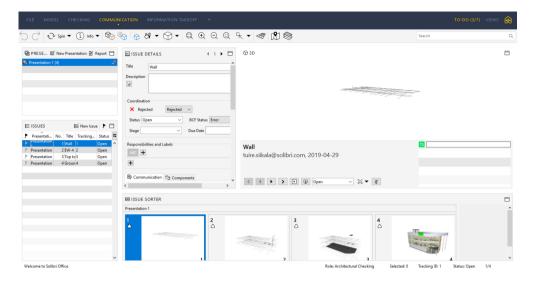


#### 2.1.4. The Communication Layout

In the Communication layout, you can create presentations and coordinate issues to other stakeholders.

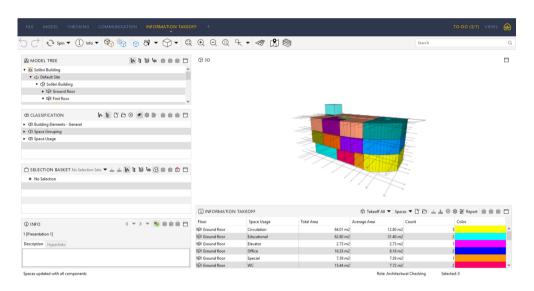
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Default views: Presentations, Issue, Issue Details, Issue Sorter, 3D.



### 2.1.5. The Information Takeoff Layout

Default views: Model Tree, Classification, Selection Basket, Info, 3D and Information Takeoff.



#### 2.2. Solibri User Interface - Views

A view is window which has a specific toolbar and can be added to a layout. Views can be moved, docked and maximized. They have pop-up menus that contain view-specific commands, and you can open the view-specific menu by right-clicking inside the view.

The default layouts have default views, but Solibri also contains additional views that you can add to any layout.

#### 2.2.1. Adding a View

To add a view:

- 1. Click the layout to which you want to add a view.
- 2. Click *Views* on the right corner of the layout toolbar.
- 3. Select the view you want to add. The view opens and is placed undocked in the centre of the screen.
- 4. Select *Dock*. Move the view to the right place. You can also grab the view from the raster area below the heading and drag and dock the view into desired location.

### 2.2.2. Moving a View

To move a view:

- 1. Move the cursor to the view name.
- 2. Press and hold down the mouse button.
- 3. Drag the view into a new position. The location that the dragged view will occupy is indicated by a rectangle that is drawn over the view location where the mouse is dragged.



#### TIP

If you drag it over another view, that view will be split, and another view location is generated for the newly dragged view.

### 2.2.3. Changing View Size

To adjust the relative size of two views:

- 1. Move the cursor between the two views.
- 2. Press and hold down the mouse button.
- 3. Move the mouse to adjust the relative size.

### 2.2.4. Maximizing, Docking and Closing a View

Click the window icon on the upper right corner of the view:



Select one of the following options:



- Maximize/Restore: Maximizes the view so that it fills the entire window. To restore it, click Restore.
- **Dock/Undock**: Docks a view into a certain position in the current layout. To toggle the view back to a floating state, click *Undock*.

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## 3. Solibri Resources

Solibri comes with a set of default resources related to its use. These files are installed on your local computer under a folder named SOLIBRI and include:

- · example IFC models
- · classifications
- rules and rulesets
- · information takeoff definitions
- · roles
- · report templates

### 4. Models

## 4.1. Supported File Formats

The following native file formats can be opened with all Solibri products:

- **SMC:** This is the native format of a Solibri project and contains the following:
- Building Geometry (from one or more imported sources)
- All components and their relationships
- · Rulesets used for checking
- · Checking results and decisions made by the user
- · User-defined information (such as compartments used in some rules)
- SMCT: This is the format of a project created with a Trial version of Solibri Office. The file can only be
  opened by the Trial user on the registered machine or, after the Trial has expired, by the same user
  with a commercial license.

The following file formats can be imported by all Solibri products:

- **IFC:** An IFC (Industry Foundation Class) is an open, vendor independent BIM model definition created by BuildingSMART International. The IFC model consists an advanced 3D geometry for the building elements with the main focus on information exchange between applications and contains:
- · Commonly agreed definitions for the building elements (walls, doors, windows, spaces etc.)
- Relationships between the elements
- · Basic project structure
- Associated data

Solibri's products support IFC R1.5.1, IFC R2.0, IFC 2x, IFC2x2, IFC2x3 and IFC4 releases; you can open a model from any IFC compliant BIM application and check it. Solibri's IFC R2.0 and IFC 2x implementations are certified by the BuildingSMART organization.

• IFCZIP: This is a ZIP compressed format consisting of an embedded IFC model.

The following file formats can be imported by Solibri Site and Solibri Office:

- ZIP (with compressed content): This is a standard ZIP compressed file containing IFC, DWG or PDF content.
- DWG: This is a proprietary binary file format used for storing 2D and 3D design data and metadata.
   Solibri Site and Solibri Office support the import of 3D geometry only and rely completely on components being placed on appropriate layers which are mapped to IFC Element Types.
- **PDF**: The Portable Document Format was developed by Adobe in the 1990's. Solibri Site and Solibri Office can overlay 2D PDF documents such as plans, sections or elevations directly in the 3D model to visualise information that is otherwise not available.
- XLS/XLSX: Data from an Excel spreadsheet can be imported to classifications and rules to populate fields in classification names, classification rules and fields in various rules.



#### NOTE

**Direct communication with ARCHICAD:** The extension allows a bi-directions link and direct communication between ARCHICAD and Solibri. In addition, all findings in Solibri can be pinpointed in ARCHICAD for easy and instant review.

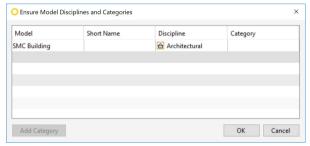
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## 4.2. Opening a Model

To start working on an IFC project for the first time, you need to open a model. Importing multiple IFC models from various disciplines creates a Federated Model, which allows design coordination and interdisciplinary checks.

Every time you open a new model, you must ensure that the model discipline is correct.

- 1. Click File, then Open Model.
- 2. Select the file(s) and and click Open.
- 3. When you open an IFC model for the first time, a dialog opens and you need to ensure the model discipline and category. If you open a saved .smc file, the discipline settings option is not given.



For more detailed information on model disciplines and categories, see Setting Model Short Name, Discipline and Category [17].

4. Click OK. The model is opened and you see the Model layout.



#### TIF

The easiest way to access existing Solibri projects is clicking *File*, then *Recent*. You can also pin models to appear at the top of the list. If you pin multiple models, the latest model which was opened occupies the top spot.

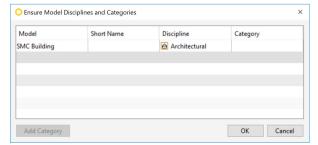
## 4.3. Adding Models

If you don't have a model open, you need to first open one.

Once you have opened a model, you can add more models from different disciplines. Importing multiple IFC models from various disciplines creates a Federated Model, which allows design coordination and interdisciplinary checks. Every time you open a new model, you must ensure that the model discipline is correct.

To add more models:

- 1. Click File, then Add Models.
- 2. Select the file(s) and and click Open.
- 3. When you open an IFC model for the first time, a dialog opens and you need to ensure the model discipline and category. If you open a saved .*smc* file, the discipline settings option is not given.



For more detailed information on model disciplines and categories, see Setting Model Short Name, Discipline and Category [17].

4. Click OK. The model is opened and you see the Model layout.



#### TIP

If you are working in the Model layout, the easiest way to add models is through the Model Tree view. Right-click the Model Tree view to open the context menu and select *Add Models*.



#### TIP

The easiest way to access existing Solibri projects is clicking *File*, then *Recent*. You can also pin models to appear at the top of the list. If you pin multiple models, the latest model which was opened occupies the top spot.

## 4.4. Setting Model Short Name, Discipline and Category

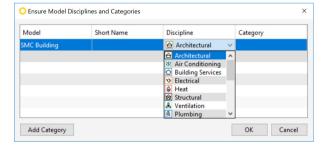
When you open an IFC model for the first time, you must ensure that the model discipline is correct. Once the discipline has been assigned, the model will retain this assignment and the information is saved to the .smc file.



#### **IMPORTANT**

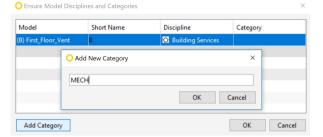
Disciplines are used in many rules, so it is vital that the imported models are correctly assigned.

To change the discipline, click the *Discipline* field and select one from the drop-down menu:

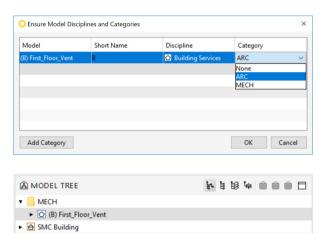


You can organise models into categories and add categories as required. To add one, click *Add Category*. Name the category and click *OK*:

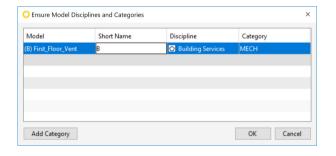
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To change the category, click the *Category* field and select one from the drop-down menu:



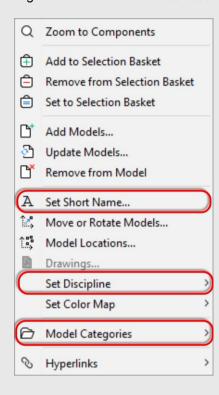
Short names are completely custom, and they are shown at the beginning of a component's displayed name. To add a short name to a model, double-click the *Short Name* field:





#### ГΙР

You can change the discipline, category and short name later in the Model Tree view. Right-click the model and select an option from the context menu:



## 4.5. Saving Models

When you save a model, it's saved as an SMC file. To save a model for the first time:

- 1. Click File, then Save Model.
- 2. Select a file location and name for the model.
- 3. Click OK.



#### TIP

If you wish to save the model with a new name, select Save Model As.



#### **SAVE YOUR MODEL**

You need to save the model at least once for a backup file of the model to be created.

## 4.6. Updating Models

You can update imported IFC models with new versions. You can update a single IFC model or several IFC models at once.

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If you update models, you need to manually re-check the model to update the checking results. Issues that are not affected by the update keep their decisions, comments and snapshots. You can see the updated model in 3D when an issue is selected. You need to update the snapshots and other details in issue slides manually.

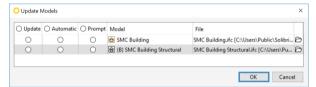
#### To update models:

1. Select a model/models in the Model Tree view. Right-click and select *Update Models* from the context menu:



Alternatively, click *File*, then *Update Models*. The dialog below will then list all the opened models and you can select which ones you wish to update.

2. The Update Models dialog opens:



Select one of the three updating options:

- **Update:** Requires you to manually carry out this task when you want to update any models. If the filename has changed (revision letter, date etc.) then the new version of the file will need to be located using the icon at the end of the row. This will need to be done for each model.
- Automatic: Updates are done automatically in the background when the software is started, and during a session if the time stamp is changed. Make sure that the new version of your file(s) is located in the same folder where the original model file is, and that it has the same name. The software will update your model automatically.
- **Prompt:** You will get a prompt when the update is available, and the updating starts at your convenience. Make sure that the new version of your file(s) is located in the same folder where the original model file is, and that it has the same name.
- 3. Click OK.



#### **IMPORTANT**

After any update or change to the Model Tree structure IFC add or removed), the software will inform you that you have unsynchronised results. You will also notice that

- The rulesets are greyed out and reporting is disabled
- Result Summary view is blank
- The Results view shows the following message advising to run the check again:
   "Some models have been modified since the last check is done, please run check to see the results."

To proceed, you must click Check Model/Check Selected to run all the checks again.

### 5. Model Tools in the 3D View

With the various model tools, you can navigate and visualise the model in different ways. You can also draw markings and dimensions on the 3D model.



#### **Table 2. Model Tools**

Tools	Function
Pan, Spin, Walk, Game	Navigation modes
Info, Select, Hide, Markup, Dimension, Sectioning, Transparent	<ul> <li>View component information</li> <li>Select components and add them to the Selection Basket</li> <li>Hide components</li> <li>Draw markups and add text and stamps</li> <li>Add dimensions</li> <li>Add section panes</li> <li>Turn components transparent</li> </ul>
Show all, Show unselected transparent, Show selected only	Component visualisation tool
Paint	Paint components with colour
Show/hide components	Show or hide certain components
Zoom extents, Zoom in, Zoom out, Zoom selected	Zooming tools
Viewpoint tool	Change the viewpoint
Camera projection	Change camera projection to perspective (3D) or orthogonal (2D)
Navigation map	Show or hide navigation map
Footprints	Show or hide footprint controls

### 5.1. Adding Dimensions

With the Dimension tool, you can measure the distance between any two points. These two points can be the endpoints of any component (corner of a wall, slab, door, object etc), the midpoint of any straight component edge or the nearest point on the surface clicked on. You can also choose modular grid lines or crossings. You cannot choose midpoint or center point (as a Osnaps in CAD tools).



#### NOTICE

Markups and are only saved in the snapshots in issue snapshots, not in the model. They are always set along on the surface of a component. They can be resized or moved after you have drawn them, but they maintain the same direction if you move them. You can change the colour and line thickness of markups and dimension markings.

To add a dimension:

1. Select the Dimension tool from the main toolbar:



2. Click the first surface.



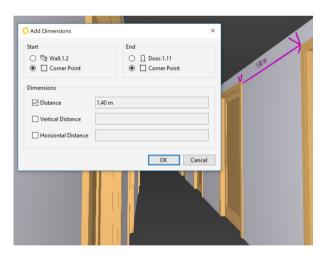
#### ГΙР

To measure the minimum distance between two components, use *Ctrl* + click (Windows) or *Cmd* + click (MacOS).

To measure between two free points, use Alt + click (Windows and MacOS).

3. Click the second surface. A line is drawn between the two surfaces, and the distance value is added.

To have the Add Dimensions dialog open when dimensioning, you need to enable it in Dimension settings or from the 3D view context menu. In the Add Dimensions dialog, you can select the starting and ending points. It also offers options for adding the distance, vertical distance and horizontal distance. You can force the point into certain options based on component geometry.



To cancel dimensioning, press ESC.

To remove all dimensions, select from the following options:

- Click <sup>©</sup>.
- Right-click in the 3D view and select Remove Dimensions from the context menu.
- Use the Hidetool and pick the dimensions you want to remove.



#### ГΙР

Ensure that the point of the cursor is over the actual bitmap of the dimension element, otherwise the object that the pointer is over will be hidden instead.

· Use Undo.



#### TIP

To change the color and thickness of the dimension line, go to Dimension settings.

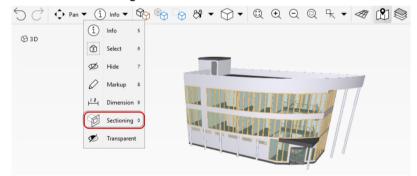
## 5.2. Sectioning

With the Sectioning tool, you can apply one or more section planes to your model to see deeper into the model and investigate its internal parts.

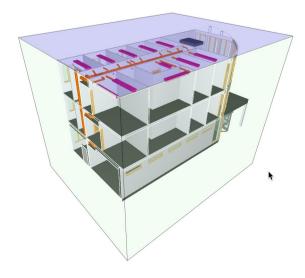
Only one section plane can be active at a time. The active section plane is blue, whereas the inactive section planes are light green. You can add up to six section planes into one model. Typically (not exclusively) this gives top, bottom, front, back, left and right around a component(s) or part of the model.

To add a section plane:

1. Select the Sectioning tool from the main toolbar:



Click a component surface. A blue section plane appears:



A number of commands are available to control the section planes:

- To switch the active section plane, press Space.
- To nudge an individual section plane, use Shift + > or Shift + < .
- To adjust the position of an individual section plane, press and hold *Shift*, click the plane and drag it to a new position.
- To adjust the position of all section planes, press and hold Shift and roll the mouse wheel.
- To rotate the active (vertical) section plane, press X or Alt + X. To rotate the active (horizontal) section plane press Y or Alt + Y. Once a section plane has been rotated from vertical or horizontal, it is possible to rotate in both X and Y axis.
- To flip the active section plane cutting direction, press *Backspace*.
- To remove the active section plane, press *Delete*.
- To switch off the visibility of all section planes, press T.

To remove all section planes:

- 1. Right-click the 3D view to access the context menu.
- 2. Select Sectioning, then Remove all Section Planes or click % from the main toolbar.

To restore section planes:

- If you accidentally remove a section plane and notice this immediately, you can click *Undo* from the main toolbar.
- If you have used *Show All* and now want to see the section planes that were previously applied to the model, right click the mouse in the 3D view and select *Sectioning*, then *Restore Previous Sectioning*.
- If you have a saved an issue with sectioning applied, these will be restored when you select the issue in the Issues or Issue Sorter view.

To save section planes:

• Section planes are only stored when you create a slide (Results view) or a new issue (Issues view).



#### **IMPORTANT**

You cannot click through a section plane. To add an additional section plane, you must rotate the model until a part of the building is visible and you can click past the existing section plane.



#### TIP

Before creating issues, it's a good idea to switch off section planes (press  $\mathcal{T}$ ) to enhance the appearance of the screenshot.



#### TIP

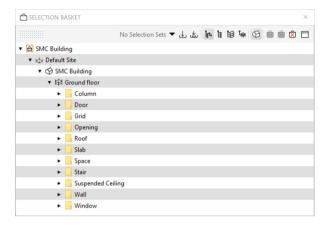
You can draw and make markings on the visible section plane, and then hide the plane by pressing *T*.

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### 6. The Selection Basket

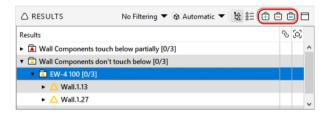
The Selection Basket is used to isolate particular components of the model for visualisation, checking and information takeoff tasks. You can use either the Select tool to add components to the Selection Basket in the 3D view or use the Selection Basket tools.

You can view and manage the selected components in the Selection Basket view. You can see and browse the selection basket content in similar hierarchies as in the Model Tree view.

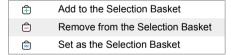


#### 6.1. The Selection Basket Tools

You can add components to the Selection Basket from multiple views such as the Model Tree, Info, Results and Information Takeoff views by using the the Selection Basket tools:



The Selection Basket tools are:





#### NOTE

The Selection Basket tools will only activate after components have been highlighted in the view you are working with.

To set components to be the content of the Selection Basket, click . The function is similar to the standard "copy to clipboard" function on any operating system. Each time you click , the current highlighted components are set to the Selection Basket and replace the previous selection.

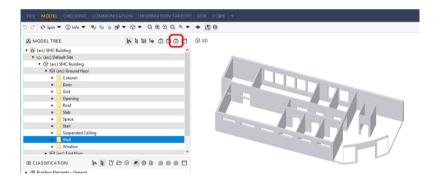
To add further components to the Selection Basket, click  $ext{ } ext{ }$ 

To remove components, click  $\stackrel{\triangle}{=}$ . You can use different model tree hierarchies or classifications to easily add or remove specific components.



### TIP

In the example below, the Model Tree view has been used to drop down to the ground floor and the wall components folder has been highlighted. This can be set using the  $\[ \]$  function.



## 7. Classification

Classification is a way to add component information to a BIM file and filter the view (which can be passed to rules or ITOs). A classification can be used to:

- provide a criteria-based or manual list which can be used to categorise elements to be ready for rules
- provide another breakdown structure for the model which is similar to the one provided in the model view but based on data in the model. This can also be colour-coded differently from the original model.
- provide a pick list against which you can check values, i.e. ensure that all values have a specific Uniclass value. This also makes checking easier, for you only have to check that the relevant elements in the classification are defined.
- evaluate the model using data which is colour-coded based on the data itself rather than the original model colours. Visualising the data differently makes it easier to view and understand.
- add additional data to the elements of a model: you can add a new field, use Excel to import the data and associate it to the model elements.
- use the values from another classification to have different levels of granularity or different purposes, all based on the same set of data.

Solibri includes default classifications used in default roles, such as:

- Furniture: furniture component classification
- Building elements (general)
- · Vertical Access: stairs, elevators, ramps
- · Space Usage: different types of space
- · Space Groups: used when specifying space groups.
- · Exits: specifying exit doors for egress

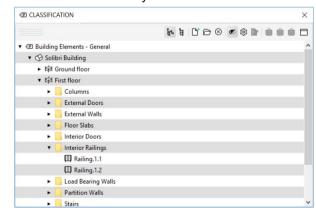
Each role has its own classifications based on the rulesets and ITOs of the role. Classifications can be defined and modified. Solibri supports ifcClassification.

#### 7.1. Classification View

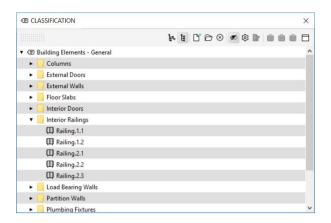
By default, the Classification view is located in the Information Takeoff layout. You can add the view to any layout using the Views list.

You can view classifications in two different hierarchies:

· Containment hierarchy:



· Classification hierarchy:



#### The other Classification view tools are:

Tool symbol	Functionality	
Ľ†	Create a new classification	
	Open classifications	
⊗	Close classifications	
<b>ø</b>	Visualisation on/off. Visualises selected classifications or components in the 3D using colours defined in the classification settings.	
<b>®</b>	Open classification settings	
D≥	Manual classification	
∄≘≘	Selection Basket tools	

## 8. Checking

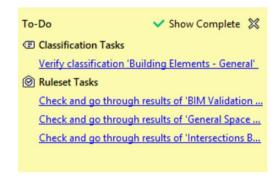
Checking is based on parameter-based rules. Each rule checks a specific item from the model, such as:

- Component dimensions
- Collisions
- · Property values
- Behaviour

Rules are collected into rulesets, and a ruleset can consist of several sub-rulesets. Rulesets can be task-specific and controlled by the active role. Default rulesets and example rulesets are included with the standard Solibri installation. You can edit and save rule parameters within the model.

## 8.1. Completing To-Do List Tasks

A ruleset, a single rule or an ITO can contain tasks. The purpose of the task is to guide user to ensure the required data is valid and available for checking. Tasks are listed in the To-Do List, which appears automatically when you open a rule or an ITO with incomplete tasks:



A task can verify that:

- · You have models open from the correct disciplines.
- · Components are correctly classified according to the rules in the ruleset.
- You have completed (project specific) parameters.
- · You have set values for required user inputs.
- · You have completed checking before running an ITO.

To open the To-Do List, click the text in the upper right corner:



To complete a task, you need to either ensure that the task is fully done or verify that at least one of the defined steps is done and no changes are required. The choice depends on how the task is set.



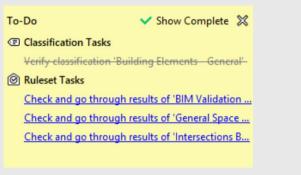
#### **IMPORTANT**

If you update the model, you will need to complete the To-Do List tasks again.



#### TIP

Once a task has been completed, it disappears from the list. To show completed tasks, click *Show Complete*. Completed tasks have been crossed out:





#### **IMPORTANT**

If you click the *Check Model* or *Check Selected* button and you have some incomplete tasks, the To-Do List prompts you to complete all tasks before checking. **Ignoring tasks is not recommended.** If you for some reason wish to ignore the incomplete tasks and check the model, click *Check Anyway*:



## 8.2. Selecting a Role and Rulesets for Checking



#### NOTICE

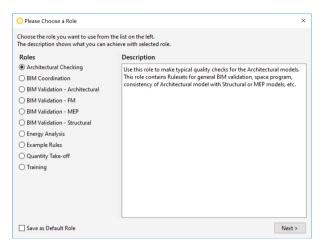
This automatic role selection dialog opens if you haven't set a default role for the project in *Roles* and if you have marked the *Show role selection* checkbox in General Settings.



#### TIP

If a role has been set, you can see it in the lower right corner of the status bar.

If you open the Checking layout, and a dialog box opens prompting you to select a role, you need to select a role and rulesets to be used in checking:



#### To select a role and rulesets:

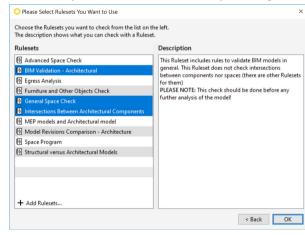
1. Select a role from the list. You can see more information about the role and the type of tasks that it can be used to perform the Description field (if the roles author has defined this).



#### TIP

If you regularly use the same role, you can choose to save it (once selected), mark the Save as Default Role box.

- 2. Click Next.
- Default rulesets to be used in checking are suggested to you. Each role can have its own set of
  default (highlighted blue) and additional (not highlighted) rulesets. The default rulesets are suggestions, and you can de-select them by clicking on them. Additional rulesets can also be selected.





#### NOTE

The Add Rulesets option is only available for Super Users.

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- 4. Select the rulesets you wish to use.
- 5. Click OK.

## 8.3. Checking a Model or Selected Components

Checking is based on parameter-based rules. Each rule checks a specific item from the model, such as:

- · Component dimensions
- Collisions
- · Property values
- Behaviour

Rules are collected into rulesets, and a ruleset can consist of several sub-rulesets. Rulesets can be task-specific and controlled by the active role. Default rulesets and example rulesets are included with the standard Solibri installation.

You have two options for checking: **Check Model** (the whole model) or **Check Selected** (the current Selection Basket content).



#### NOTE

If you use *Check Model*, you can subsequently filter the results with the Selection Basket tools. If you use *Check Selected*, only results will be provided for the elements in the Selection Basket.



#### IMPORTAN'

If you add, remove or update models, or make changes to the rules, the Report function is greyed out and you need to perform the check again to have updated checking results.



#### TIP

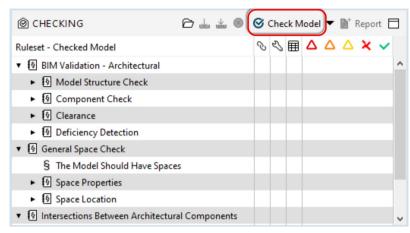
To view the content of the Selection Basket, add the Selection Basket view to the Checking layout.



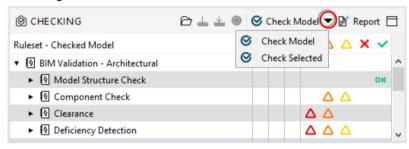
#### TIP

If you wish to focus on certain rules and rulesets and speed up the checking process, you can disable rules and rulesets in the Checking view.

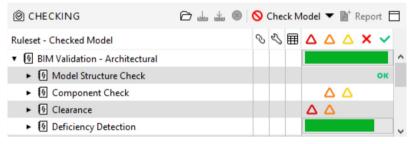
1. To check the entire model, click Check Model in the Checking view toolbar:



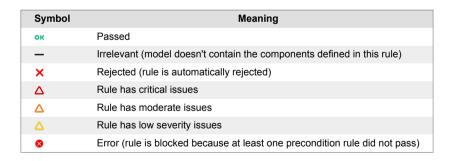
To check the components/parts of the model in the Selection Basket, click *Check Selected* in the Checking view toolbar:



2. The progression and status of checking are shown in the Checking view:



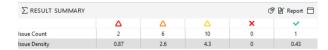
3. The checking results are marked with symbols indicating the status of each rule:



## 8.4. Viewing Checking Results

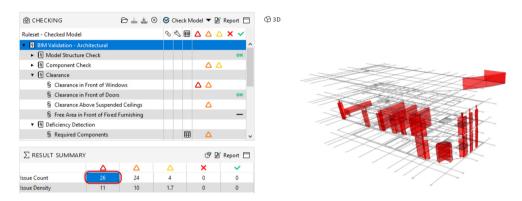
#### 8.4.1. Result Summary View

The Result Summary view shows a summary of the checking results:



The view is filtered according to the rules and rulesets you select in the Checking view. Issues are organised by their severity level. Issue Density refers to the number of issues divided by the size of the building. This value is useful to compare values with revisions as the project progresses.

If you select a cell in the Result Summary view, the corresponding components are visualised in the 3D view:





#### TIP

To find more information on the number of components checked, passed or failed as well as the status of any issues, open the Checked Components view by clicking \*\*:



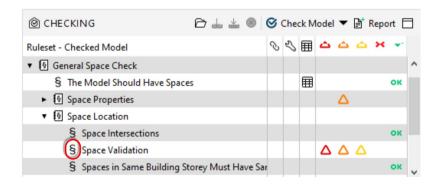


#### TIP

To keep a permanent recorded of the Results at this stage of the project, you can create a Result Summary report.

#### 8.4.2. The Results View

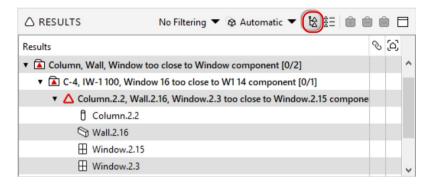
To view the results of a rule in the Results view, select the individual rule in the Checking view:



In the Results view, you can filter the results or view them using the category or list hierarchy.

#### **Category hierarchy:**

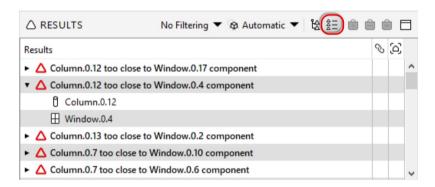
The category hierarchy shows the results in categories. The root of the tree is the category. Categories help you to investigate and visualise rules and make comments and decisions to a whole category at once. To view the results in a category hierarchy, click be in the Results view.



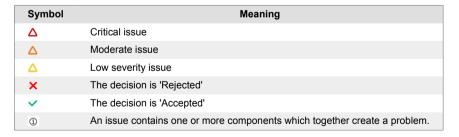
#### List hierarchy:

The list hierarchy shows you all results at once, which makes it easier to go through the results one by one. In this example screenshot below, the same results are shown in a list hierarchy, showing a list of individual issues. Depending on the type of check, the category and list hierarchies each have their benefits.

To view the results in a list hierarchy, click  $\stackrel{\triangle}{=}$  in the Results view.



The Results view has symbols which indicate the severity level of the result:



## 8.5. Making Decisions

You can mark issues, result categories and components as accepted, rejected, undefined or unhandled. In some special cases, Solibri automatically rejects some components.

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#### **IMPORTANT**

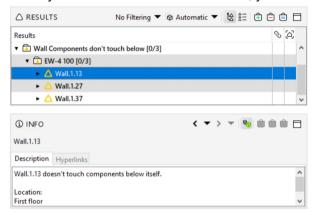
If an issue needs to be rejected, we recommend you to add an issue slide [38], for then the decision is automatically set to 'Rejected'.

For accepted issues, you can use the *Mark as Accepted* option provided, but be aware that **no audit will be recorded** as to who accepted the issue, unless a slide is added with the accepted condition.

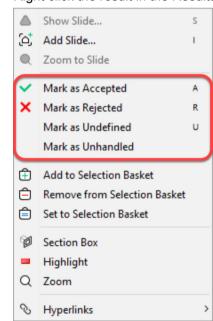
The decisions (accepted or rejected) are visible in reports and can be used in selections and to filter issues.

#### To make a decision:

1. When you click a result at the issue level, you can see a description of the issue in the Info view:



2. Right click the result in the Results view. Select one of the options from the context menu:

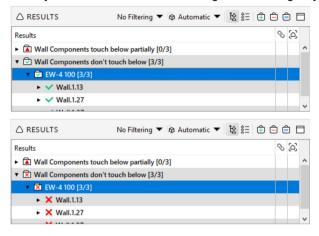




#### TIP

You can also use the keyboard shortcuts (Shift + A/R/U).

3. The symbol before the result changes according to your decision:



## 9. Communicating Issues

## 9.1. Adding an Issue Slide

When you create an issue slide, you can add snapshots to the issue and communicate it further. You can also add an issue slide for categories and individual components. One issue can have several issue slides.

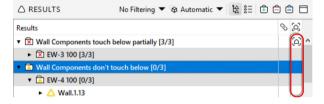


#### **IMPORTANT**

When you create an issue from a checking result, the result is automatically marked as rejected  $(\times)$ .

To add an issue slide:

1. Right click a category, individual issue or a component in the Results view and select *Add Slide* from the context menu. Alternatively, double click the cell in the slide column:

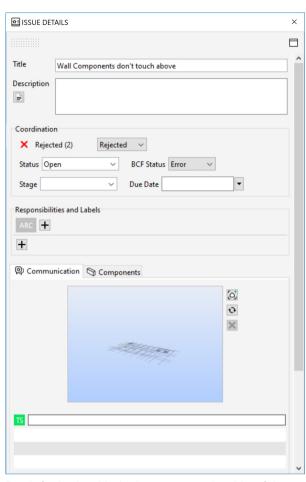




#### TID

It's common to create issue slides at a higher level to group similar issues. However, by creating the issue slide at the issue level (triangle), you can ensure that all components which are part of the identified issue are automatically added to the Components tab in the issue details. If you add a slide at the component level, you have to manually add other components using the Selection Basket, if required. See The Selection Basket [25].

2. The Issue Details view opens, showing the details of one issue slide:



By default, the title is the same as the title of the category, issue or component you selected. For more information on how to edit issue details, see Editing Issue Details [40].

3. When you have added a slide to an issue, an icon appears in the Results view:





#### NOTICE

Adding slides to issues doesn't automatically add them to a presentation. To add the issue slide to a presentation, you need to create a presentation from checking results. See New Presentation [44].

After the slide has been added to a presentation, the icon in the Results view changes from  $\bigcirc$  to  $\bigcirc$ :

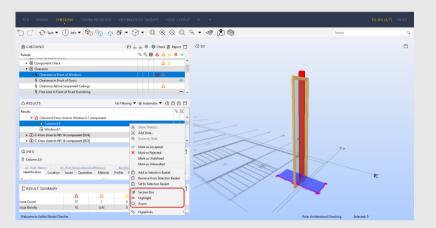
39



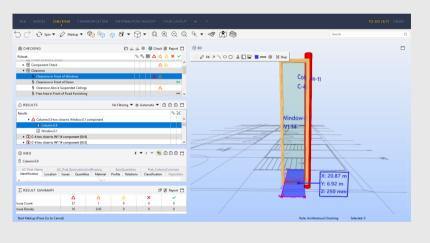
# 0

#### TIP

You can make issue slides more informative by using visualisation tools. You can, for example, add a section box, highlight components and zoom into them:



You can also add markups and dimensions to the model (these are only saved in the slides):

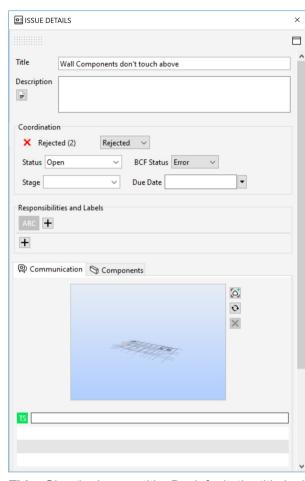


## 9.2. Editing Issue Details

In the Issue Details view, you can determine and edit the details of an issue slide. We recommend you to fill at least the Title and Description fields. To edit issue details:

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1. To open the Issue Details view, add an issue slide [38] or select an issue in the Issues view.



- 2. **Title:** Give the issue a title. By default, the title is derived from the category/issue/component name.
- 3. **Description:** You can adjust the information added to the Description in Checking settings. In the settings, you can choose to automatically add the rule name, description, categories, issue name and issue description. To add the default issue description (defined in the settings), click .



### NOTICE

The location where the original issue slide is created will affect the granularity of the data added here. Issue slides created at a higher level will only contain basic summary information whereas issue slides created at the issue level (triangle) will contain specifics about the components in relation to the specified rule.

#### 4. Coordination:

- · You can mark the issue as Accepted, Rejected or Undefined.
- Status: You can add a freely defined status (e.g. Assigned, Closed, Open, Resolved, Urgent, On hold).
- BCF Status: Error, Info, Unknown, Warning
- Stage: You can add a freely defined project stage
- Due date: add a milestone or a deadline for the project
- 5. Responsibilities and Labels:



• In Responsibilities, you can define for example a person, team or discipline responsible for fixing the issue. To add a responsibility, click the + icon on the first row. A dialog box opens. Write your text (e.g. initials or project role) and click *OK*.

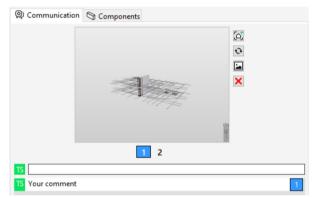


#### NOTE

If two or more responsible persons have the same initials, they will all have a unique code colour. The responsible person remains on this list as long as they have at least a single issue assigned to them.

• In Labels, you can add an additional label or a tag. To add a label, click the + icon on the second row. A dialog box opens. Write your text and click *OK*.

#### 6. Communication tab:



- You can add multiple snapshots to one issue. The new snapshot to be added is the current 3D view. To add a new snapshot to the issue, click .
- If the model has for example been updated and checked, update the slide thumbnail to match the current view by clicking .
- You can also add images as snapshots. **Notice that the image replaces the current snapshot.**To replace a snapshot with an image, click ...

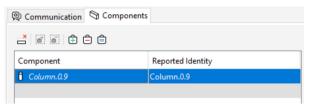




#### ГΙР

If you wish to add an image as additional information, first add a new snapshot and then replace it with an image.

- To delete an additional snapshot, click .
- You can add comments to communicate with other project members. Comments are saved with the model. Comments are saved with username and cannot be edited or deleted by other users. This way we can ensure that the revision history of the project is saved.
- 7. **Components tab:** Shows a list of the components that are related to the issue:



These enable the components to be identified in other software such as the BIM authoring tool.

8. Location: You can add the location information of the issue. To clear the field, click X.



#### **TIP**

You can select multiple issues in the Issues view and update all the issues simultaneously. You can add general comments to the issues in the Issue Details view.



#### TIP

If the model has been updated, any new or modified issues will need attention, and any closed issues will need to be addressed in the Communications view.

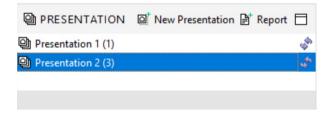
## 9.3. Creating a Presentation

You can create presentations to organise issues into logical groups. These can be based on a single ruleset or any combination of rulesets. Presentations can also be used to save model views used for further processing or common viewing locations.

Presentations are collections of issue slides (in short, issues). Presentations are created to:

- Collect the findings from checking results
- Save snapshots to share with project participants
- · Create an audit trial of identified issues

You can add several presentations to your model. You can also add more issues to the current presentation. Presentations are listed in the Presentation view:



In the Presentation view, you can create presentations [43] manually (adding issues one by one), from checking results, from a BCF, or from ITO results. You can also create reports from presentations.

Presentations are saved in the SMC model. The commenting history is also collected and saved with the model.

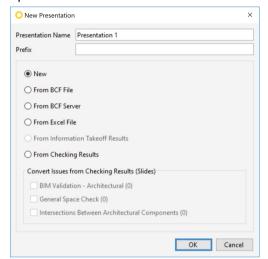


#### TIP

You can show presentations as slideshows.

To create a new presentation:

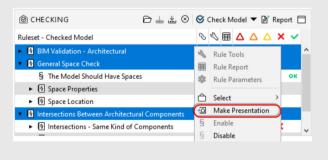
1. Click *New Presentation* in the Presentations view. A dialog opens, showing you the presentation options:





#### TIP

You can also create presentations directly from the Checking view. Once you have added the issue slides, select the rulesets required, right click and select *Make Presentation* from the drop-down menu:



- 2. Add a name to the presentation.
- 3. If you wish, give the presentation a prefix. Prefix of a presentation is used to differentiate issues between presentations. It can be any alphanumeric string; the system automatically appends a unique number to issues in the presentation.
- 4. Select the presentation type. The different types are explained in detail below.

#### 9.3.1. New Presentation

To create a new presentation from scratch, select *New* and click *OK*. The first issue is created automatically, and the current 3D viewpoint is stored in the issue.



#### TIP

It's a good idea to keep issues created by rulesets in different presentations than the issues you can created manually. This helps streamline the process when models are updated allowing you to sort issues where they are no longer connected to the rules i.e. resolved.

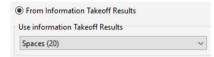
#### 9.3.2. Presentation from a BCF File

To create a presentation from a BCF file, select *From BCF File*. and click *OK*. A dialog opens. Select the file and click *Open*.

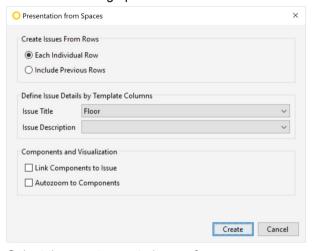
#### 9.3.3. Presentation from Information Takeoff Results

This option is enabled only when at least Information Takeoff table is populated in the Information Takeoff view. The ITOs that have updated information in the Information Takeoff view are part of the dropdown list.

- 1. Select From Information Takeoff Results.
- 2. Select which ITO results you wish to use from the drop-down list:



3. Click OK. A dialog opens:



- 4. Select the way to create issues from row:
  - Each individual row: Each presentation issue will include the component(s) and view from one individual row in the ITO. If the ITO has 20 rows, there will be 20 issues.
  - Include Previous Rows: The first presentation issue will include the component(s) and view
    from the first row in the ITO. The second issue will include the components and the view from the
    first and the second rows, the third issue will include components and the view from all the previous ones etc.
- 5. Define issue details:
  - · Issue title: You can specify which ITO column will be used as title of the issues to be created
  - **Issue Description:** Presentation issues have a Description field which can be specified as the description of the columns in the ITO.
- 6. If you check *Link components to issue*, all the components in the view are included in the issue's component list in the Components tab in the Issue Details view.
- 7. If the ITO has a Relation column (e.g. Nearest Spaces), all the ITO rows that have that relation are grouped in one issue.

- 8. If you check *Autozoom to components*, the components in the view from the current slide are zoomed for each issue separately.
- 9. Click Create. The presentation is created.

### 9.3.4. Presentation from Checking Results

- 1. Select From Checking Results.
- 2. Select specific result sets you wish to be included:



The number in brackets indicates the number of issue slides you have added to the issues.

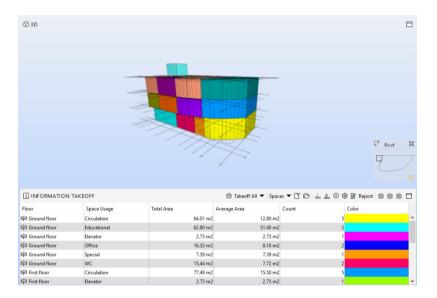
3. Click OK. The presentation is created.

## 10. Information Takeoff (ITO)

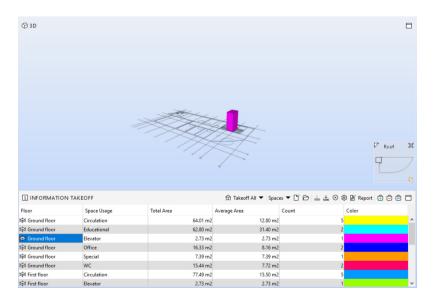
Information Takeoff (ITO) allows you to see components in the 3D view and analyse quantities, properties and locations at the same time. In ITO, you can use templates contained by Solibri to report information such as quantities from the model.

Solibri includes a number of pre-defined ITO definitions, but you can also create new ones [49] based on your individual requirements. You can save ITO definitions externally and use them in other projects or machines. Each ITO definition can have one or several different Excel reporting templates to create the reports [51] formatted the way you require.

The Information Takeoff view includes tools for ITO handling. The columns of the ITO table are defined by the active ITO definition. You can calculate the whole model or parts of it (see Information Takeoff Options [48].



If you click a row in the ITO table, the components are visualised in the 3D view:



The colour of the component is defined by the Color column in the ITO. If this column is not present, default component colours are used. You can also set the colour with a certain column value.



#### ΊP

To search similar components or find the same value, right click in the Information Takeoff view and select *Show Equal* from the context menu.



#### TIP

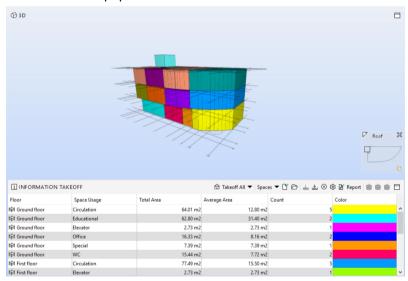
You can pick components from the table and set them to the Selection Basket [25].

## 10.1. Information Takeoff Options

You have three options for information takeoff: Takeoff All, Takeoff Selected and Takeoff All ITOs.

**Takeoff All:** Updates the Information Takeoff table with all components of the model which pass the definition filter.

- 1. Click Takeoff All in the Information Takeoff view.
- 2. The ITO table is populated with information:



Takeoff Selected: Updates the Information Takeoff table with components from the Selection Basket.

- 1. Add the components to the Selection Basket.
- 2. Click Takeoff Selected in the Information Takeoff view:



3. The ITO table is populated with information.

**Takeoff All ITOs:** Updates all Information Takeoff tables included in the model with all the components in the model.

1. Click Takeoff All ITOs in the Information Takeoff view:

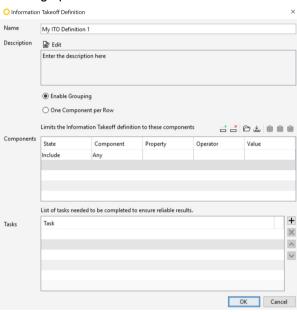


2. The ITO table is populated with information.

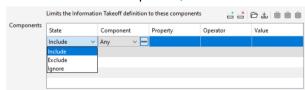
## 10.2. Creating a New Information Takeoff Definition

To create a new ITO definition:

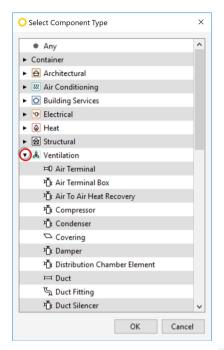
- 1. In the Information Takeoff view, click ...
- 2. A dialog opens:



- 3. Give the ITO definition a short descriptive name.
- 4. Add a detailed description and function. Click *Edit* to open the text editor.
- 5. Select the way components are listed in the ITO table:
  - **Enable grouping:** One row can refer to several components grouped by the similar property values in the component.
  - One component per row: One row refers to one component.
- 6. **Components:** Filter the components to be analysed. You can include, exclude or ignore components. To select a component, click ::

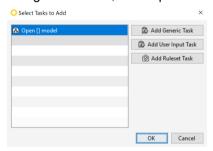


A dialog opens. Select the discipline which is relevant to the ITO definition. To see the full list of components related to a discipline, click the small arrow. Select the component type and click *OK*:



To add a row to the new filter, click ≡.

7. **Tasks:** If you wish, you can list task that need to be completed to ensure reliable results. You can add generic tasks, user input task and rule tasks. To add a new task, click  $\pm$ . A dialog opens:





#### TIP

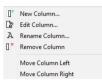
If you want to add a verification task for a classification, first accept the ITO definition, add the field and then go back to the settings and add a task. You will get the option to verify the classification added as a column.

- 8. Click OK. The new ITO definition is opened in the Information Takeoff view.
- 9. By default, a new ITO definition has the following columns:



- Component (IFC component type, such as wall or door)
- Type (construction type)
- Count (number of components the row represents)
- Color (based on Type column)

You can change the order of the columns, as well as add and remove columns. To edit the columns, right click a column header in the ITO table:





#### TIP

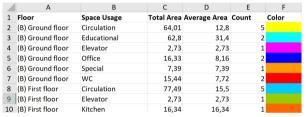
You can also drag and drop columns to change their order. Although each column can be sorted A to Z or Z to A, the priority is driven from the first to the last column in the sheet.

## 10.3. Creating an Information Takeoff Report

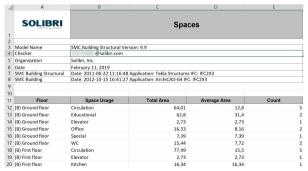
Solibri contains example Excel templates for reporting default ITOs. ITO definitions can have multiple reporting templates. You can edit the templates from the Report Information Takeoff dialog or or from the Resource path where the templates are located.

You can report the ITO as

· Plain Excel report



- Includes all columns and rows in ITO view with no formatting
- WYSIWYG report
- Excel template report

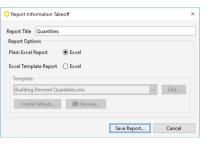


- Can contain header rows, such as company colours, fonts and logos.
- · Typically has reduced number of columns
- · Color column is typically removed
- Can include formulas and other Excel functions

To create a report from the ITO results displayed in the Information Takeoff view:

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- 1. Click Report in the Information Takeoff view.
- 2. A dialog opens:



- 3. If needed, change the report title.
- 4. Select report type:
  - Plain Excel report
  - Excel template report



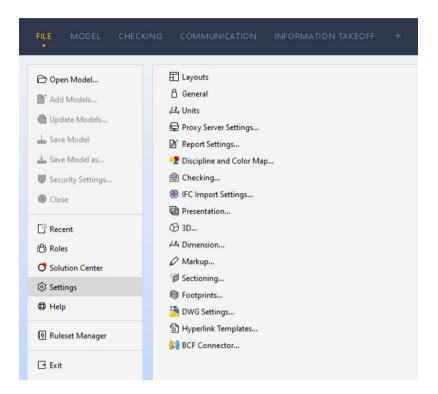
To edit a template, select a template from the list and click *Edit*. To create a new template based on the data already contained in the current ITO, click *Create Default*. Save your template to your resources location and then select it from the list to apply it to the current ITO.

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5. Click Save Report.

## 11. Settings

To access settings, click File, then Settings:



## 11.1. Layouts Settings

Layout settings allow you to manage the User Interface configuration of Solibri.

A saved layout stores the layouts available (Layout bar) and the views that are loaded as well as their on-screen size and positions.

The layout settings allow you to apply (=restore) a default or saved layout configuration. Any changes made to your configuration can also be saved from this dialog.



If a role has a default layout set in the Roles panel, the Default layout set field shows the name of that layout set. Otherwise, Solibri's default layout set is used.

To restore the changes you have made to the current layout set:

- 1. Click Restore.
- 2. A dialog opens:



3. Click OK.

To open an existing custom layout set:

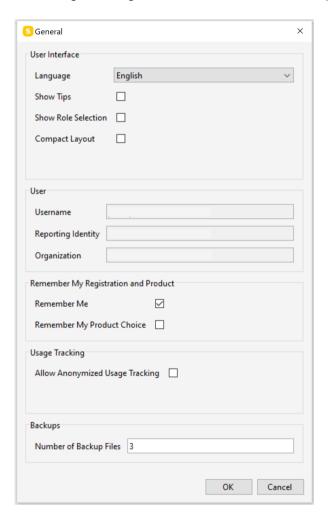
- 1. Click Open.
- 2. A dialog opens. Select the layout file and click Open.

To save the current layout as a custom layout:

- 1. Click Save As.
- 2. A dialog opens. Select a location, name the layout and click Save As.

## 11.2. General Settings

In general settings, you can edit the user interface settings, save your credentials and product choice, allow usage tracking and define the number of backups saved.



User interface settings:



#### **IMPORTANT**

Before changing the language, ensure that the required language pack with correct resources has been installed.

- Language: To change the language, select a language from the drop-down list and click *OK*. Close the model and restart Solibri.
- Show tips: Show tool tips.
- Show role selection: If you have this option selected, you are prompted to select a role and the resources you want to load when you a layout which has the Checking, Classification or Information Takeoff view. See Roles.
- Compact layout: Solibri will adopt a compact layout style.



#### TIP

We strongly recommend using the compact layout for resolutions below full HD 1920x1080.

#### **User settings:**

The following information is derived from Solibri Solution Center (SSC).

- **Username:** Your username is the email address you have used to register to SSC. Username is shown in reports and collaboration.
- Reporting identity: Shows your initials. This can be used instead of username in reports and collaboration if configured in the report settings in Presentation Settings.
- Organization: Typically, this is the name of your company in SSC.



#### NOTE

You cannot change any of these details yourself. If you require changes to your user settings, you need to contact your SSC Administrator.

#### Remember me:

• When checked, your account and licensing details are stored on your machine, so you **do not** need to enter them each time you start Solibri. This is **not recommended** on public or shared accounts/computers.

#### Remember my product choice:

- When checked, the product choice dialog will not be shown when you start Solibri and the product you have selected (Office, Anywhere, Site) will be started automatically.
- If you wish to start another product, you need to uncheck the checkbox and restart Solibri. You can then choose the product from the product choice dialog.

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#### **Usage tracking:**

• When checked, Solibri will collect anonymous usage data that will be used to improve the software.

#### Backups:

- The maximum number of backup files can be set here. Backups are stored in the same directory as the .smc project file. By default, the value is 2.
- The first time a model is saved, a copy is generated to preserve the original content. This is given an addition to the filename: exampleproject.smc\_org.bak. The backups are then generated on each save, and the oldest will be overwritten when the maximum number of backups is reached.



#### **SAVE YOUR MODEL**

You need to save the model at least once for a backup file of the model to be created.

## 11.3. Units Settings

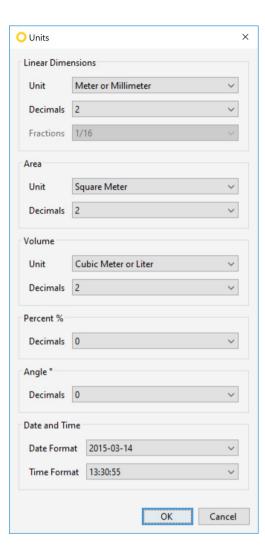
In the units settings, you can define the measurement units and set their level of accuracy (number of decimals). You can also define the date and time formats. You can choose to use either the International System of Units (SI) or the imperial system.

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#### **IMPORTANT**

The precision of the units will effect the values in rules.





#### TIP

Unit definitions are stored locally on each machine, and the settings are not transferred or stored in *.smc* project files. We recommend that companies coordinate their unit settings in order to standardise output from presentations and reports.



#### NOTE

The units set by the user are then the default units for that user. Therefore, typing a value without a unit will automatically enter the user's chosen unit. Adding a unit to the end of a value will then force that unit into the field but then automatically convert the value to the chosen unit.

## 12. Keyboard Shortcuts and Mouse Controls

### **Table 3. General**

Functionality	Keyboard shortcut	Mouse controls
Undo	Ctrl/Cmd + Z	-
Redo	Ctrl/Cmd + Y	-
Go up	Page up	-
Go down	Page down	-
Copy to clipboard	Ctrl/Cmd + C	-
Show properties	-	Double click left mouse button
Elevate	-	Ctrl/Cmd + mouse wheel
Change navigation mode	14	-
Change tool	50	-
Zoom out	+ (plus)	Mouse wheel
Zoom in	- (minus)	Mouse wheel
Zoom extents	Ctrl/Cmd + ', Home	-
Zoom selected	=	-
Change viewpoint	Ctrl/Cmd + 0 9	-
Pan	Arrow keys	Hold middle mouse button down
Spin	-	Ctrl/Cmd + hold middle mouse button down

### **Table 4. Pan Navigation**

Functionality	Keyboard shortcut	Mouse controls
Pan	Arrow keys	Left/middle mouse button
Spin	Ctrl/Cmd + arrow keys	Ctrl/Cmd + left mouse button

### **Table 5. Spin Navigation**

Functionality	Keyboard shortcut	Mouse controls
Spin	Ctrl/Cmd + arrow keys	Left mouse button
Continuous spin	Ctrl/Cmd + R	Middle mouse button
Pan	Arrow keys	-

### **Table 6. Walk Navigation**

Functionality	Keyboard shortcut	Mouse controls
Walk	Arrow keys, W, S, A, D	Left mouse button
Free look	Alt/Option + arrow keys	Alt/Option + left mouse button
Walk faster	Ctrl/Cmd	-
Collision detection On/Off	С	-

## **Table 7. Game Navigation**

Functionality	Keyboard shortcut	Mouse controls
Enter/Exit Game mode	G	Left mouse button
Enter/Exit Fly mode	F	-
Forward	<i>W</i> , Up	-
Backward	S, Down	-
Right	D, Right	-

Functionality	Keyboard shortcut	Mouse controls
Left	A, Left	-
Walk faster	Ctrl/Cmd	-
Look around	-	Move mouse
Collision detection On/Off	С	-

### Table 8. Info Tool

Functionality	Mouse controls
Show info	Left mouse button
Show part info	Shift + left mouse button
Start area selection	Hold left mouse button down

### **Table 9. Selection Tool/Selection Basket**

Functionality	Keyboard shortcut	Mouse controls
Select	-	Left mouse button
Multi-select or unselect	-	Ctrl/Cmd + left mouse button
Select part	-	Shift + left mouse button
Start area selection	-	Hold left mouse button down
Empty Selection Basket	Ctrl/Cmd + Shift + Backspace/Delete	-

## **Table 10. Hide Component Tool**

Functionality	Mouse controls
Hide	Left mouse button
Hide part	Shift + left mouse button
Start Hide selection	Hold left mouse button down

## Table 11. Markup Tool

Functionality	Keyboard shortcut	Mouse controls
Add markup	-	Left mouse button
Delete markup	Delete	-
Stop markup	Esc	-
Start area selection	-	Hold left mouse button down

### **Table 12. Dimension Tool**

Functionality	Keyboard shortcut	Mouse controls
Add dimension	-	Left mouse button
Stop dimension	Esc	-
Lock to component	-	Ctrl/Cmd + left mouse button
Lock to point	-	Alt/Option + left mouse button
Start area selection	-	Hold left mouse button down

## Table 13. Sectioning Tool

Functionality	Keyboard shortcut	Mouse controls
Add section plane	-	Left mouse button
Move section plane	<, >	Shift + mouse wheel
		Shift + hold left mouse button down

Functionality	Keyboard shortcut	Mouse controls
Move section plane Slower	Ctrl/Cmd + <, >	Ctrl/Cmd + Shift + mouse wheel
		Ctrl/Cmd + Shift + left mouse button down
Select section plane	-	Left mouse button
Select next section plane	Space	-
Flip section plane	Backspace	-
Rotate section plane	X, $Alt/Option + X$ , $Y$ , $Alt/Option + Y$	-
Delete section plane	Delete	-
Show/Hide section plane	Τ	-
Start area selection	-	Hold left mouse button down

## Table 14. Transparent Tool

Functionality	Mouse controls
Set transparent	Left mouse button
Set part transparent	Shift + left mouse button
Start Transparent selection	Hold left mouse button down

### Table 15. Show/hide

Functionality	Keyboard shortcut
Show/Hide components	Alt/Option + S, W, L, C, R, D, I, B, O, T
Show all	Ctrl/Cmd + Shift + A
Show only selected	Ctrl/Cmd + Shift + S
Show non-selected transparent	Ctrl/Cmd + Shift + D

### Table 16. Issues

Functionality	Keyboard shortcut
Mark selected issues	Ctrl/Cmd + J
Unmark selected issues	Ctrl/Cmd + Shift + J
Add issue slide	Ctrl/Cmd + I
Add responsibilities	Ctrl/Cmd + B
Add label	Ctrl/Cmd + L
Add comment	Ctrl/Cmd + K

### Table 17. Results

Functionality	Keyboard shortcut
Show slide	S
Add slide	1
Mark as accepted	Α
Mark as rejected	R
Mark as undefined	U

## 13. Getting Help with Solibri

For further help with Solibri products:

- See the FAQ at www.solibri.com/support
- Check out our online help at www.solibri.com/help
- Watch tutorial videos on our YouTube channel
- Get training from your local Solibri partner (contact details at www.solibri.com/support)