User Guide
BIMWIZARD® for Graphisoft® ArchiCAD®

Australia

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USG Boral Building Products Pty Limited

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Document Revisions

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Table of Contents

1 Introduction 1

1.1 ....Scope and Purpose 1

1.2 ....Installation 1

1.3 ....Interface Layout 2

2 System Selection Work Flow 3

2.1 ....Select Wall/Ceiling Type 3

2.2 ....Filtering 4

2.2.1 Performance Criteria 4

2.2.2 Attributes 7

2.2.3 Ancillary 7

2.2.4 Acoustic Ceiling Tiles 8

2.2.5 General Filter Area – Buttons and Features 8

2.3 ....Browse Results and Select Desired System 9

2.4 ....Export System Information 10

2.5 ....Import System Information to ArchiCAD 11

2.5.1 Standard Import Method (aka Bring In Everything) 11

2.5.2 Bring in all USG Boral Attributes 20

2.5.3 Bring in Composites only (without importing all attributes first) 22

2.5.4 Fire Barrier Intersections 24

2.5.5 Attribute Manager Overwrite Method 28

2.6 ....Tabs 29

2.6.1 Folders Tab 29

2.6.2 Solutions Tab 30

3 Options 33

3.1 ....General Options 33

3.1.1 Show Help On Startup 33

3.2 ....Advanced Features 34

3.2.1 Wall/Ceiling System Naming Tools 34

3.2.2 Folder Utilities 37

3.2.3 Feedback Tab 38

4 Customisation 39

5 Schedules and Overrides 40

1 Introduction

1.1 Scope and Purpose

Welcome to the User Guide for USG Boral's Graphisoft® ArchiCAD® tool, BIMWIZARD®! This guide will help you navigate the multiple areas and functions of this application as well as understand the ways it may save you time and reduce design risk.

The BIMWIZARD® application is a new tool that streamlines the process of selecting, designing and creating the correct USG Boral wall or ceiling system for your project requirements. BIMWIZARD® will recommend USG Boral solutions based on your specifications and facilitate your selection getting imported to your project library in just a few, easy steps.

Key benefits of incorporating BIMWIZARD® into your workflow include:

- An easy to use, intuitive interface
- Access to 100,000 USG Boral data-rich models representing our full product catalogue
- Ability to sort by system performance, product attributes and physical dimensions
- Save hours of design time and anxiety by using our pre-qualified design solutions
- Automatically self-updates to ensure you have our latest database
- All content compliant with Australian Building Code and Standards

This guide assumes that the user has access to and a base knowledge of ArchiCAD software.

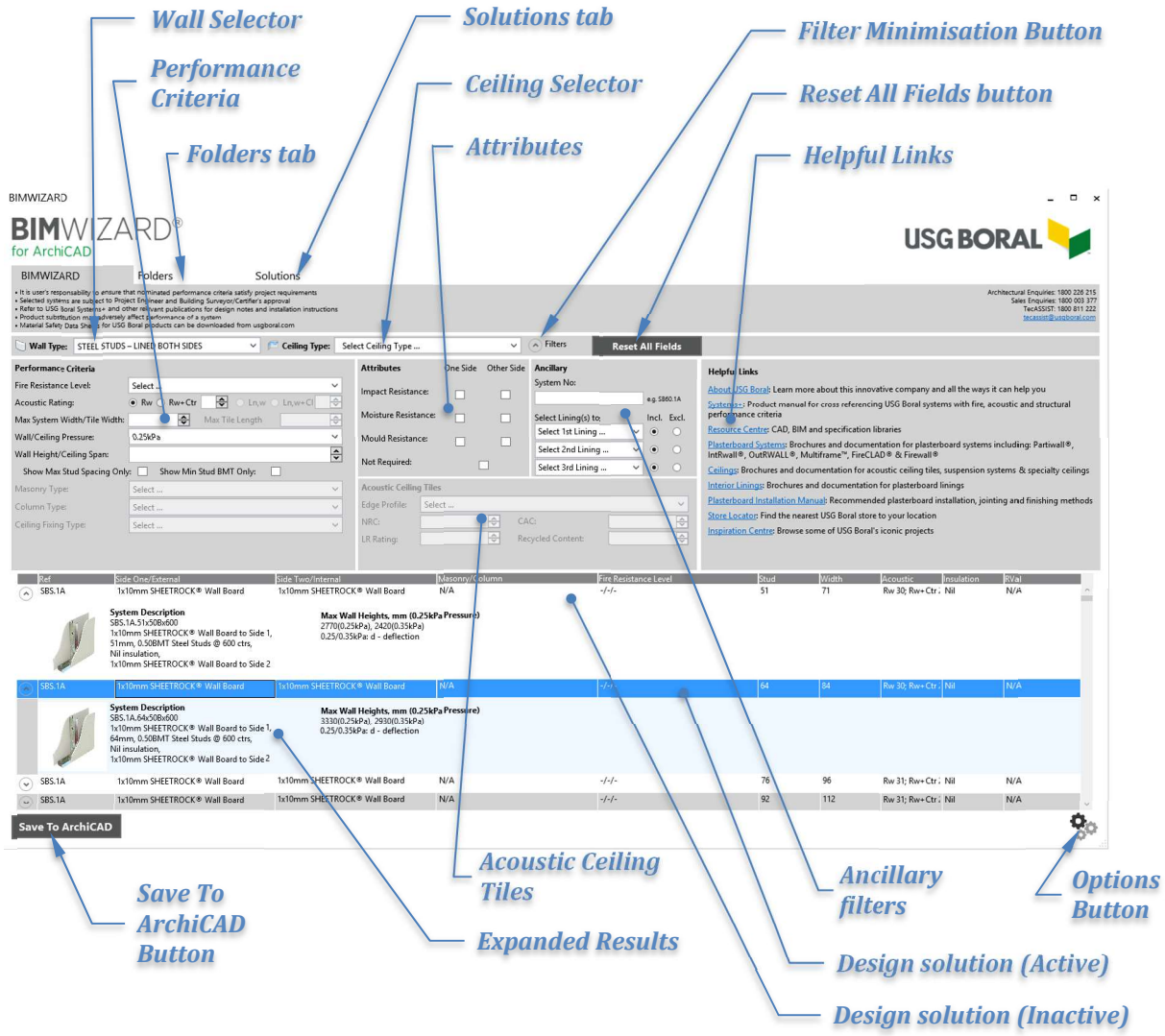
1.2 Installation

Download and open the installer file named 'BoralBimWizardArchicad.msi' and follow the steps on the installation wizard. Upon completion, the BIMWIZARD® application will be installed and available in the windows start menu.

NOTE: Upon download you may receive a warning message since the installer is an executable file type. These warnings can safely be dismissed.

1.3 Interface Layout

The below image is a typical screen shot from the BIMWIZARD® home page with labels of commonly referenced areas and features.



2 System Selection Work Flow

The general work flow for finding the wall or ceiling system best suited to your needs and importing it into your ArchiCAD library is as follows:

Step 1: Select wall/ceiling type

Step 2: Filtering (select performance criteria, lining attributes and miscellaneous options)

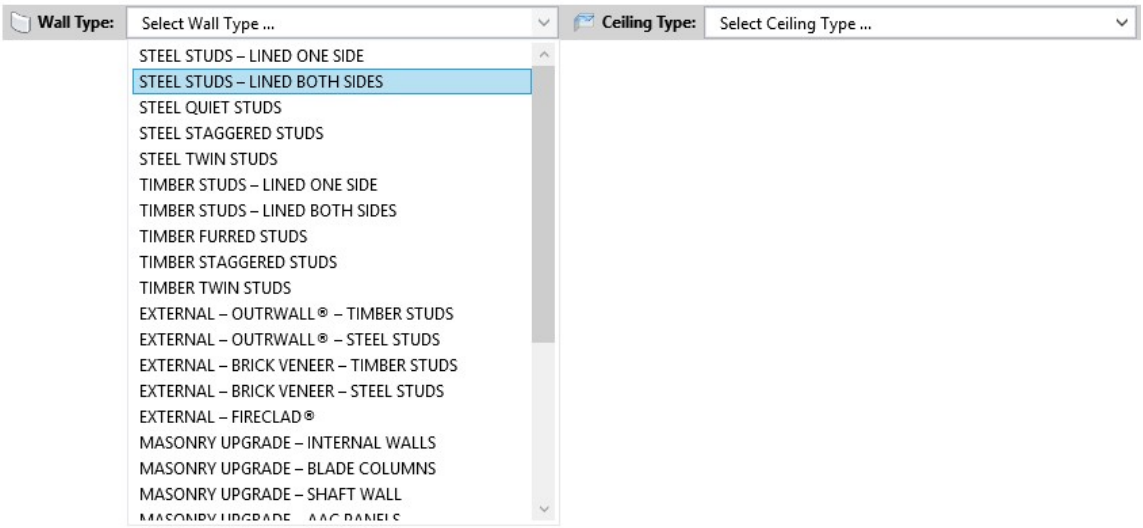
Step 3: Browse results and select desired system

Step 4: Export system information to hard drive

Step 5: Import system information from hard drive into ArchiCAD

2.1 Select Wall/Ceiling Type

When BIMWIZARD® first opens, only the wall and ceiling selectors are visible and active. Selecting from one of these menus starts the filtering process.



Tips:

- Only one wall or one ceiling type can be selected at a time and all results will belong to the current system type.
- Some systems that aren't technically walls are found in the wall type menu, such as:
  - Fireclad® external cladding
  - Column protection systems.
- Some systems with both vertical and horizontal elements appear in both menus, such as:
  - Beam protection systems
  - Firetunnel™

2.2 Filtering

To find the system best suited to your project's requirements, utilise the various filter options available below the system selectors. Please note some of the filters will be grey and inactive depending on which system type was selected. This is because those filters are not applicable or not needed for the current system type.

Tips:

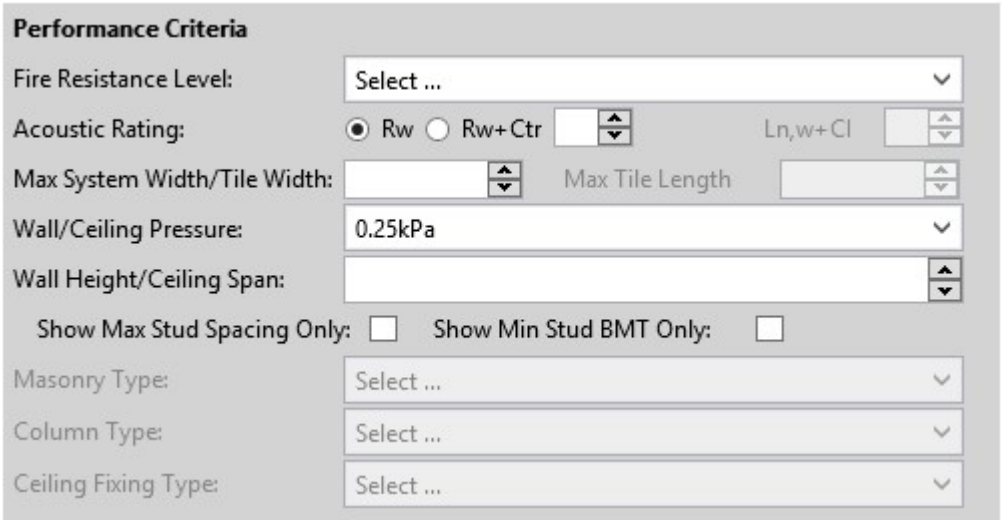
None of the filters need to be used to get basic results, but some systems won't show unless certain filters have been activated. For example:

- Most systems with special attributes, like mould resistance, won't show until the corresponding attribute box has been ticked
- Systems with insulation generally won't show until an acoustic rating has been set
- Stud arrangements show maximum spacing and minimum BMT until a wall height or ceiling span has been set

The filters are grouped into four areas; Performance Criteria, Attributes, Ancillary and Acoustic Ceiling Tiles.

2.2.1 Performance Criteria

Filters in this group define a characteristic of the overall system such as fire rating, acoustic rating or physical dimensions.



2.2.1.1 Fire Resistance Level

This filter has options for load bearing (XX/XX/XX) or non-load bearing (-/XX/XX) fire ratings. Selecting a non-load bearing option will return all fire ratings of equal or greater duration but selecting a load bearing option will return only load bearing fire ratings of equal or greater value (e.g. selecting -/60/60 will return 60/60/60 results but selecting 60/60/60 will not return -/60/60 results)

2.2.1.2 Acoustic Rating

This filter gives the option to search by either Rw or Rw+Ctr values. For some ceiling systems Ln,w and Ln,w+Cl are also searchable. Only systems with the least insulation (usually none) will show until the Acoustic Rating filter has been activated.

2.2.1.3 Max System Width/Tile Width & Max Tile Length

For acoustic ceiling tiles, these two fields set the maximum dimensions of an individual tile (e.g. 600 x 1200). For all other applicable systems, the left field sets the maximum thickness of the wall or ceiling.

2.2.1.4 Wall/Ceiling Pressure

This is for setting the pressure on a wall or spanning ceiling. Changing this filter only has an effect on search results if the Wall Height/Ceiling Span filter is also used.

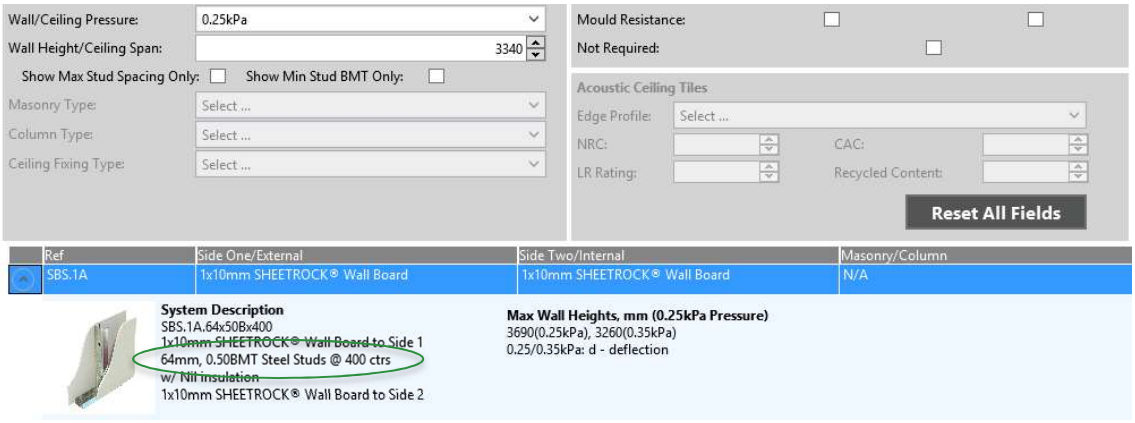
2.2.1.5 Wall Height/Ceiling Span

Entering a value into this field will adjust the spacing and/or base metal thickness (BMT) of framing members in the search results to make them structurally appropriate. Maximum heights/spans for each result can be seen in the expanded result.

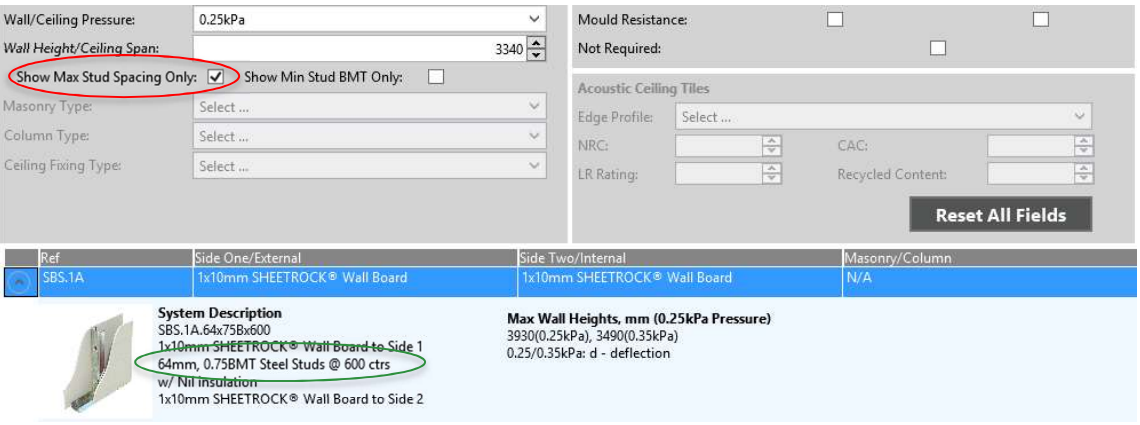
2.2.1.6 Show Max Stud Spacing Only & Show Min Stud BMT Only

Once a wall height/ceiling span value has been entered, BIMWIZARD® makes a decision for you on the most efficient framing arrangement. Should you want to see only solutions with the maximum stud spacing, you can tick the Show Max Stud Spacing Only box and if you only want solutions with the minimum BMT, you can tick the Show Min Stud BMT Only box. Refer to the example below.

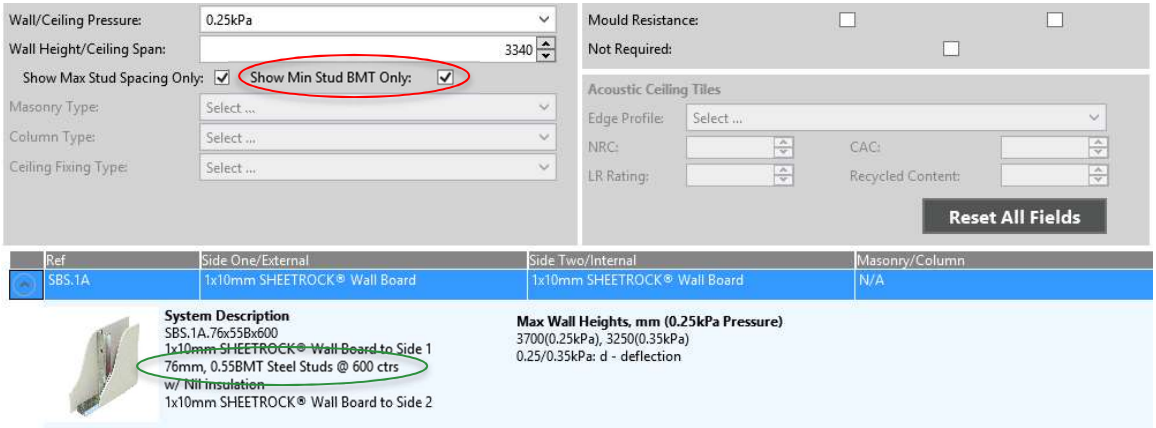
Example:



For the system, pressure and wall height specified above, BIMWIZARD® has suggested 64mm wide studs at 400mm centres with a 0.50mm BMT.



Ticking the Show Max Stud Spacing Only box changes the stud spacing to 600mm centres and compensates with a 0.75mm BMT.



Ticking the Show Min Stud BMT Only box simultaneously changes the BMT to 0.55mm and compensates with a 76mm wide stud.

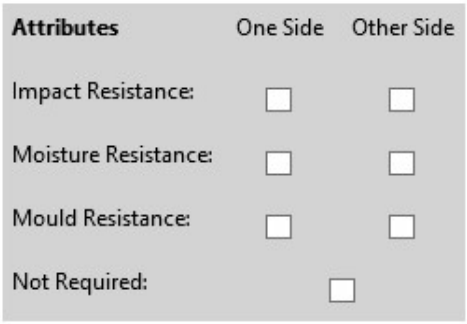
2.2.1.7 *Masonry Type, Column Type & Ceiling Fixing Type*

These three menus allow for selection of a specific element in particular systems, namely:

- The thickness/type of masonry in masonry upgrade systems
- The type of column in column protection systems
- The type of ceiling fixing in some ceiling systems.

2.2.2 Attributes

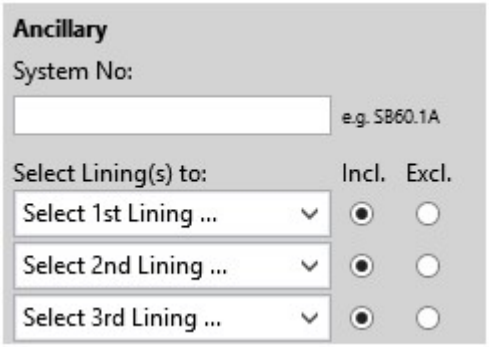
Filters in this group define a characteristic of the system lining such as impact, moisture or mould resistance attributes.



The Not Required box removes all systems with special attributes from the search results (some show by default). Some systems with impact boards provide superior acoustic performance, so it's good practice to not use this box when trying to meet acoustic criteria.

2.2.3 Ancillary

Filters in this group are used for refining search results based on USG Boral system and material naming conventions.

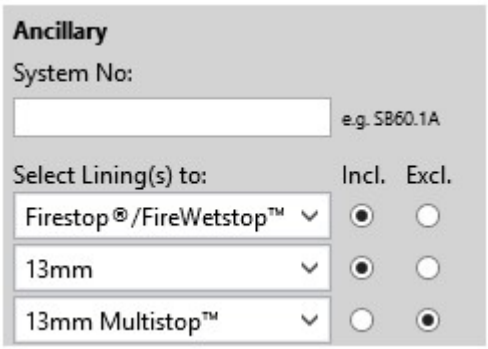


2.2.3.1 *System No.*

This filter is used when searching for a specific USG Boral system. A minimum of 3 characters is required to activate the filter which will return any systems that contain an exact match of the input text in their system reference (first column of the results).

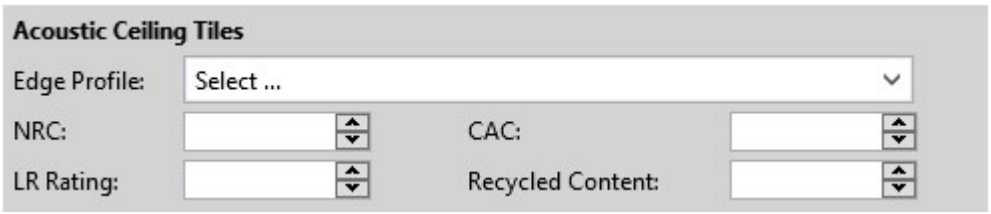
2.2.3.2 *Material filters*

These filters are used when specific lining products either need to be used (select Include) or must not be used (select Exclude). Engaging multiple filters works with an AND logic (e.g. in the image below, the filter would only return systems with Firestop®/FireWetstop™ AND at least one 13mm lining AND don't have 13mm Multistop™.



2.2.4 Acoustic Ceiling Tiles

Filters in this group apply specifically to acoustic ceiling tile systems.



2.2.5 General Filter Area – Buttons and Features

Besides the filters in the three main areas there are a few other features worth mentioning in the general filter area.

2.2.5.1 *Filter Minimisation Button*

Located beside the Ceiling Type selector, this button hides the entire filtering area to display more results at one time.

2.2.5.2 *Reset All Fields Button*

Quickly clears all inputs and sets filters back to default.

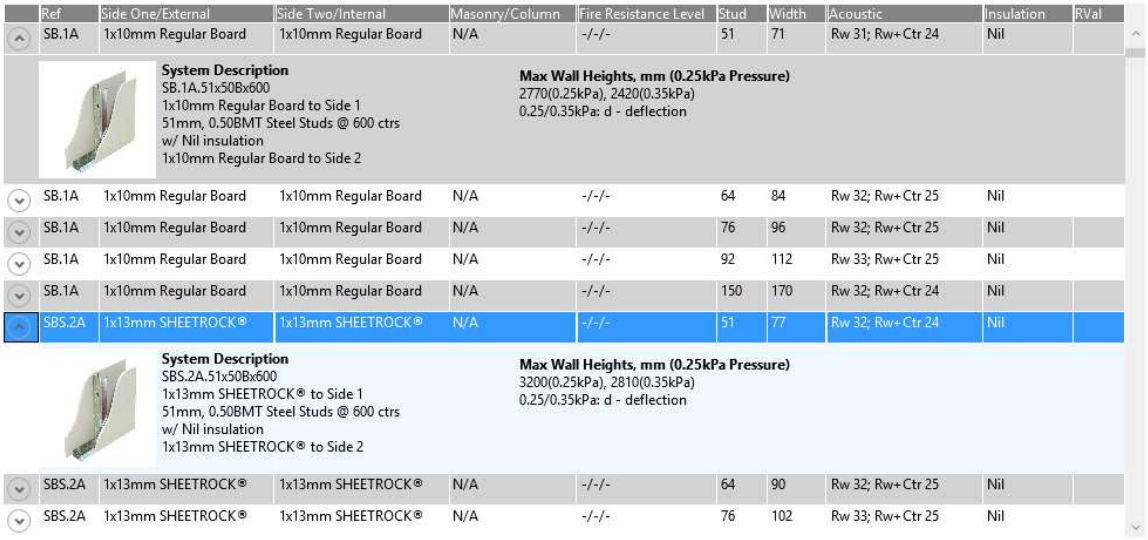
2.2.5.3 *Helpful Links*

These are web links that give quick access to various locations on the USG Boral website.

2.3 Browse Results and Select Desired System

Once a wall or ceiling type has been selected, you will see this area populated with design solutions where each row represents a specific system arrangement.

- The results will update dynamically as you engage various filters
- Results at the top of the list are the most recommended solutions for your set of design requirements
- The more detail you input, the better your solutions will be.



Left click anywhere within a row to see additional information including:

- Full system number
- System description
- Maximum wall height/ceiling span
- Height limiting factors.

Right click anywhere within a row to bring up the context menu and save the selected system to a favourites folder.

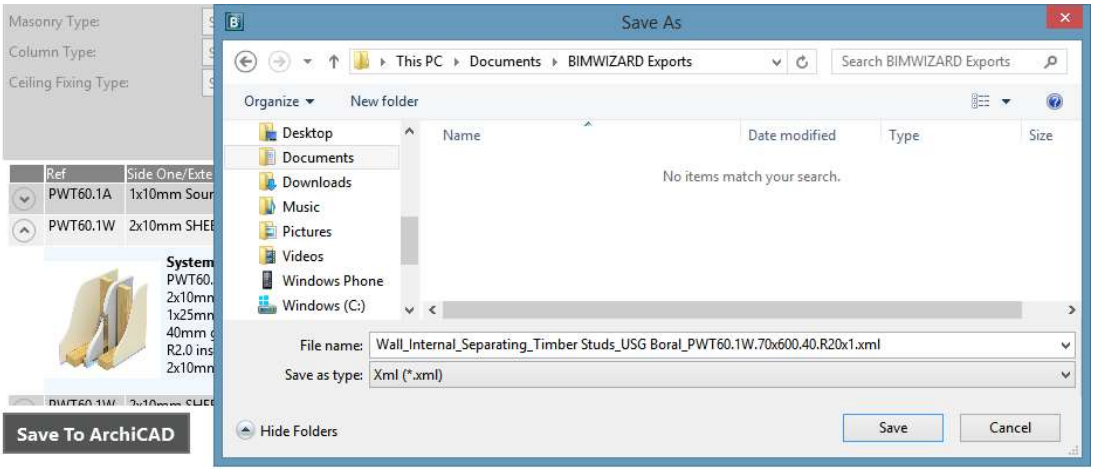
Tips:

Multiple rows may be expanded simultaneously, but only the highlighted row is currently selected for saving to ArchiCAD.

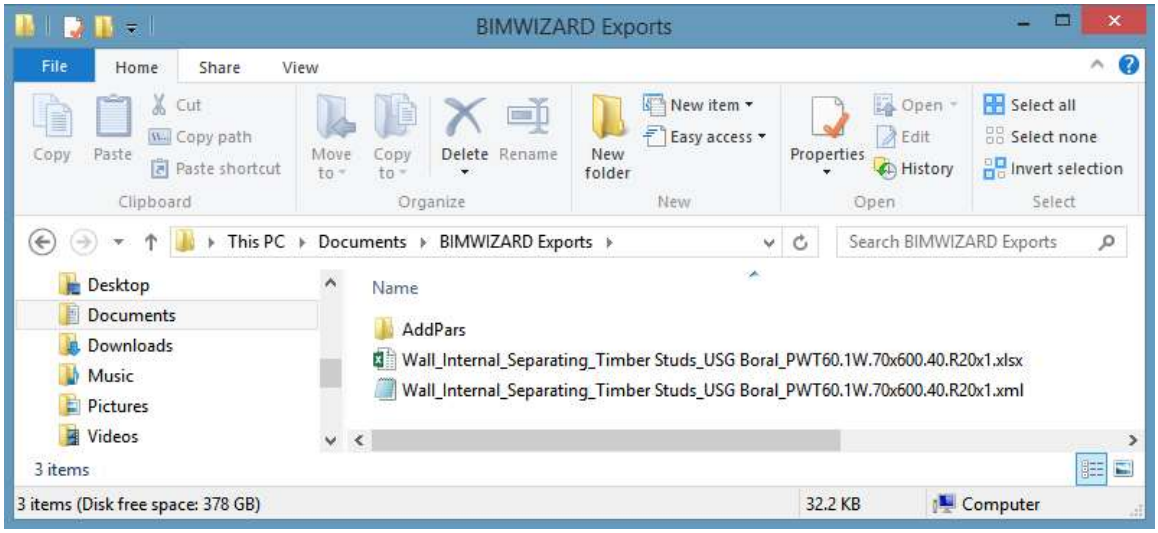
2.4 Export System Information

Once you've found the solution you want, you're ready to generate the system and add it to your ArchiCAD library by selecting the system and clicking the Save To ArchiCAD button.

A Save As dialogue box will appear. Navigate to your desired folder and click Save.



BIMWIZARD® will save 3 items in the destination folder: an XML file and an XLSX file of the same name and a folder named "AddPars" that is required for importing the XML file. The XML file contains information about the system's composite and included attributes. The XLSX file contains the system's property values. If multiple systems are exported to the same location, their XML files will share the AddPars folder.



Tips:

There is no harm in renaming the file in the Save As dialogue, however this will not update the composite name within the files, which is what determines its name in ArchiCAD. To change both, use the custom naming feature.

2.5 Import System Information to ArchiCAD

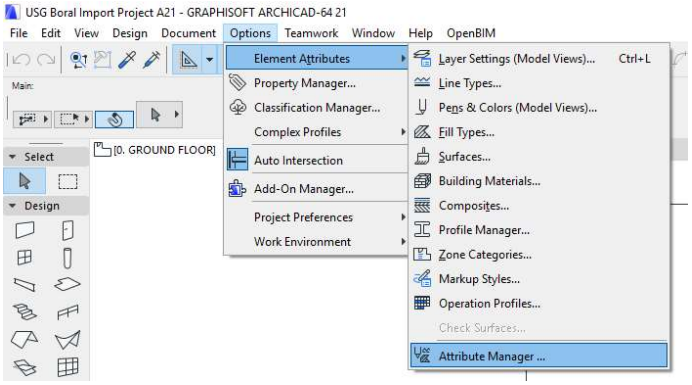
Because BIMWIZARD® for ArchiCAD doesn't interface directly with ArchiCAD, several steps are required to fully import USG Boral systems. There are many different methods you can use, but the most common and efficient are described here. The ArchiCAD menu and command descriptions in this manual are based on ArchiCAD 21 and may vary in different versions, but the methodology is the same unless notes otherwise.

2.5.1 Standard Import Method (aka Bring In Everything)

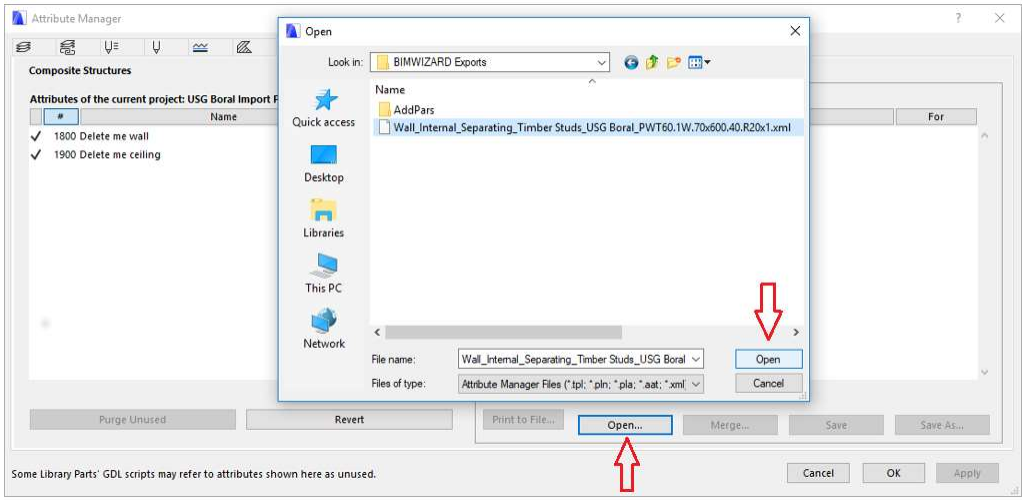
The standard import method is recommended by USG Boral as the best way to utilise its content in ArchiCAD. It is also the method depicted in BIMWIZARD®'s quick tutorial. This set of instructions assumes you only want to bring in attributes (building materials, fills, surfaces, etc.) required for your imported systems. If you first import the 'USG Boral All Building Materials Lines Fills Surfaces.xml' file to your project, you can skip any steps in this section about importing attributes.

2.5.1.1 Importing Composites

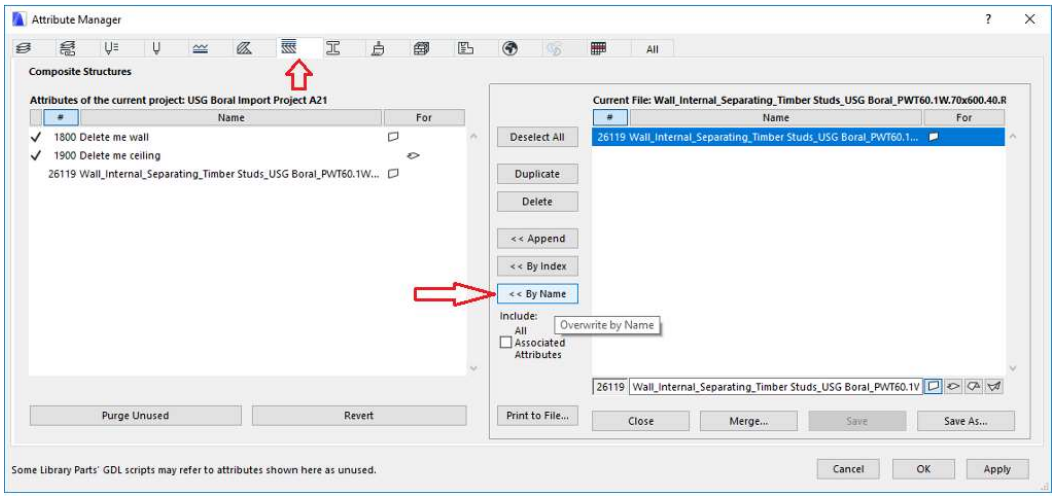
Open the preconfigured 'USG Boral Import Project A21.pln' file. Once open, navigate to Options > Element Attributes > Attribute Manager…



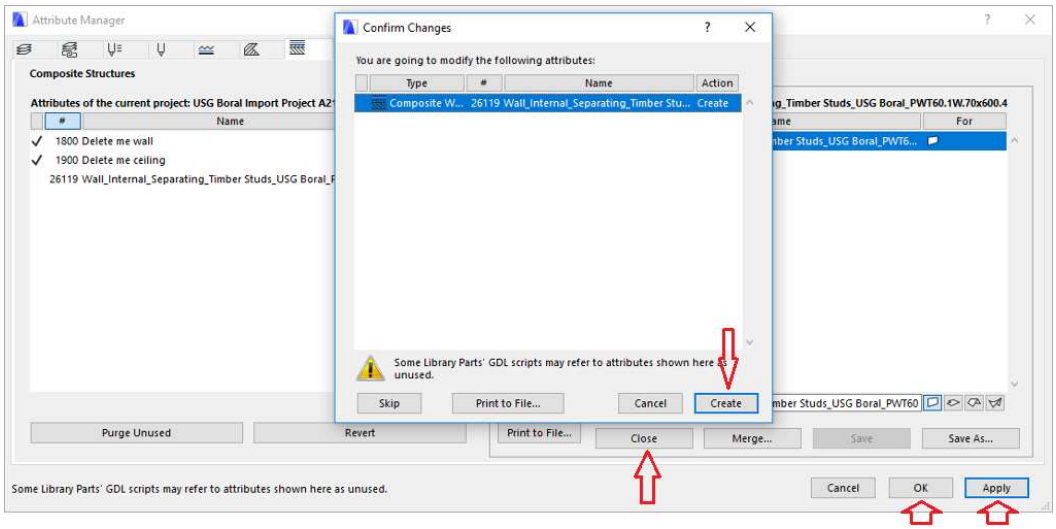
Click the "Open…" button, then navigate to your save location. Select the desired system and click the "Open" button.



Select the Composites tab, then select the composite in the right pane and click "<< By Name" as the overwrite method.

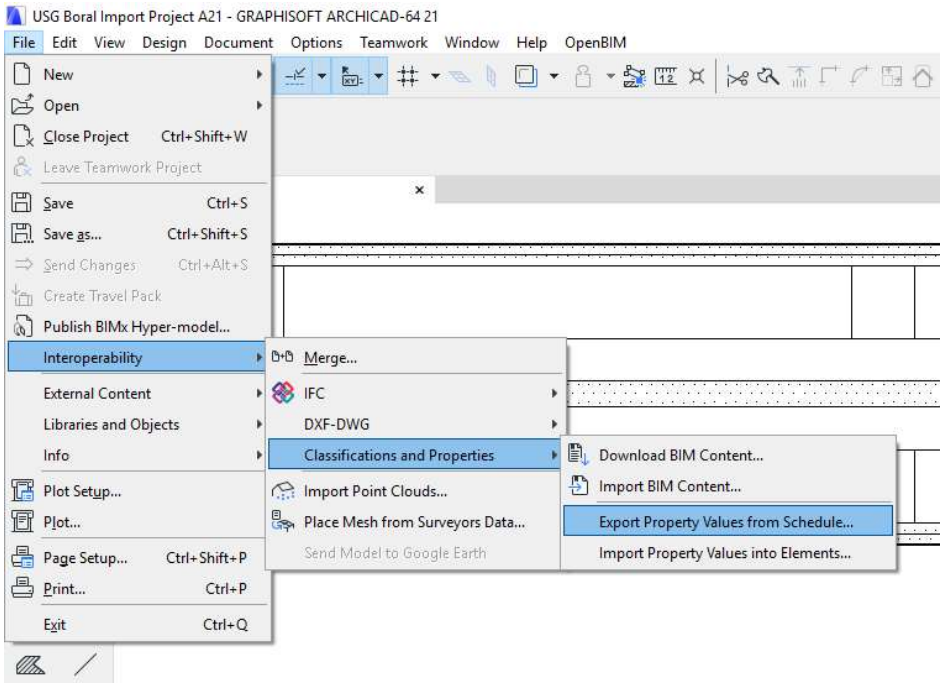


Click the "Apply" button, then click the "Create" or "Modify" button as appropriate. To bring in additional composites, click the "Close" button and repeat the previous steps. To exit, click the "OK" button.

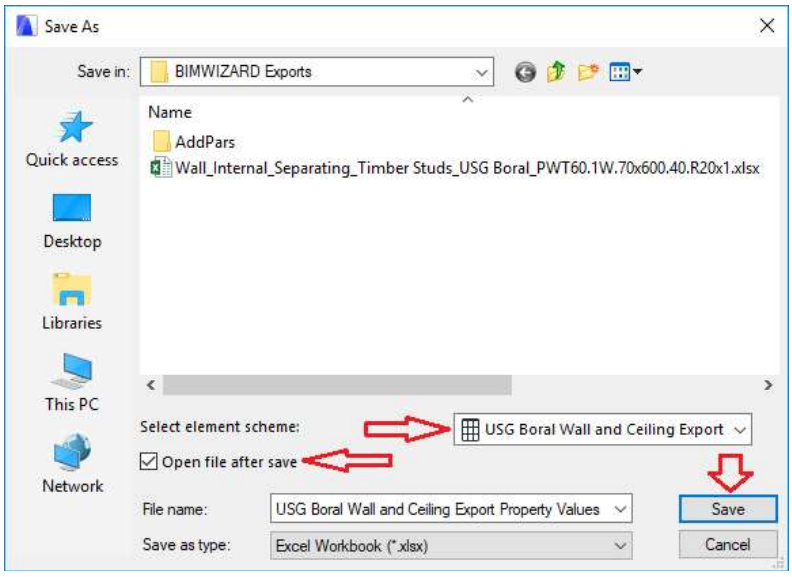


2.5.1.2 *Importing Element Properties*

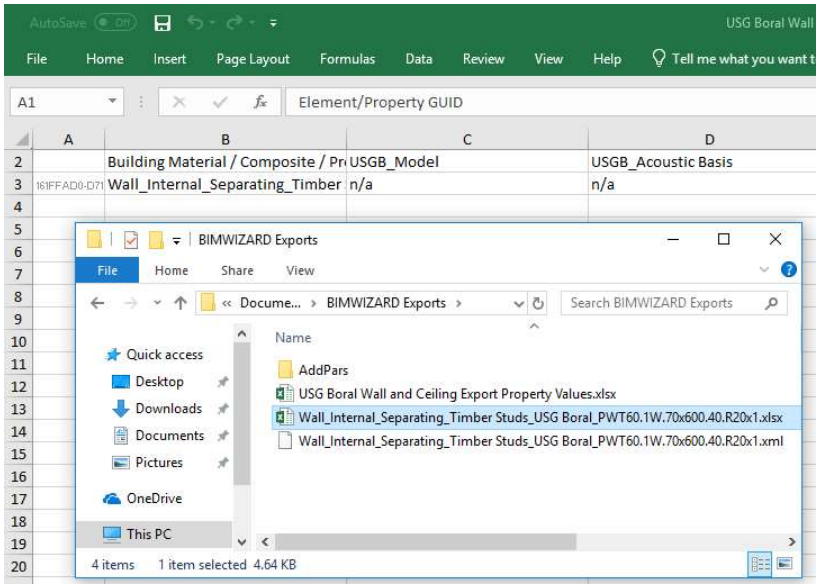
To bring in the element's properties, first place an appropriate element in the project (place a wall for a wall type composite, slab for ceiling) and assign the desired composite to the element. If you're bringing in multiple elements, it's best to import all the composites before this step then place exactly 1 element for each composite. Navigate to File > Interoperability > Classifications and Properties > Export Property Values from Schedule…



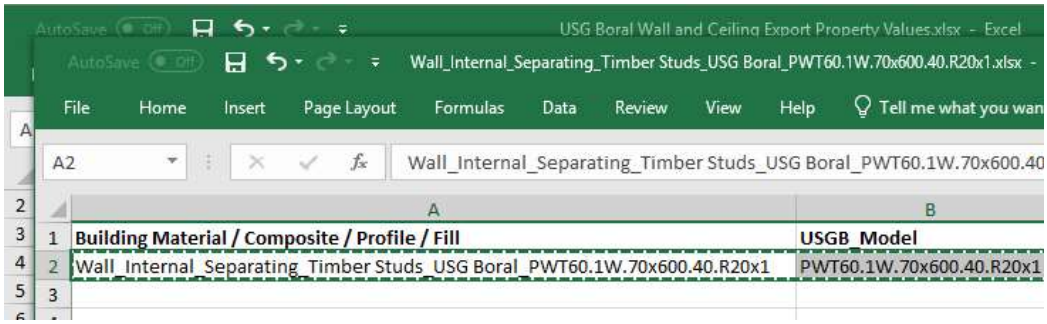
Navigate to the desired save location, ensure the element scheme is set to 'USG Boral Wall and Ceiling Export', the 'Open file after save' box is checked (optional) and click the "Save" button. We'll call this the **Property Exports** file. You can rename this XLSX file if you wish.

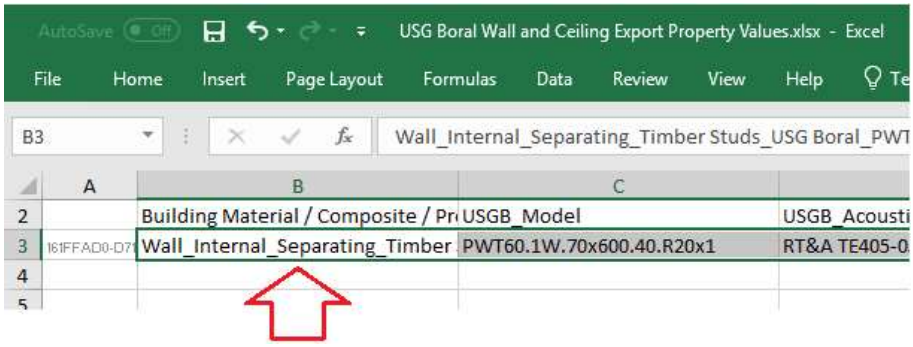


In windows explorer, navigate to the folder where you saved the files exported from BIMWIZARD® and open the XLSX file in Excel (Hint: it will have the same name as the XML file). We'll generically call files of this type the **BIMWIZARD® Property File**.

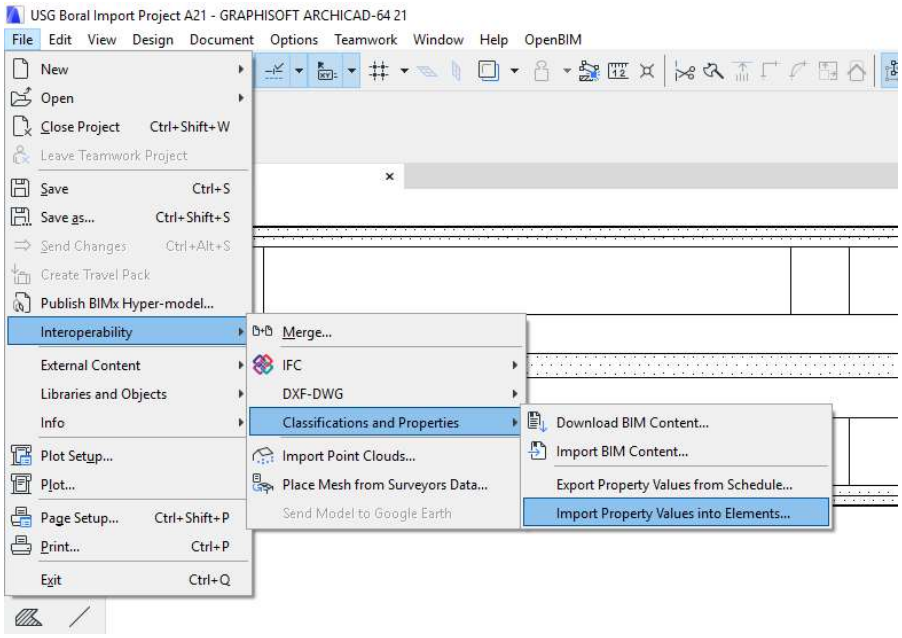


Select all the cells in row 2 of the BIMWIZARD® Property File (NOT the entire row, as this won't paste correctly) and press Ctrl+C. Open the Property Exports file, select cell B3 and press Ctrl+V. If you've exported multiple elements, open all of their respective BIMWIZARD® Property Files and copy/paste in a similar manner. Make sure to paste into the appropriate cell of column B in the Property Exports file, the name of the composite copied must match the name of the composite in the paste location! Save and close the spreadsheet when finished.

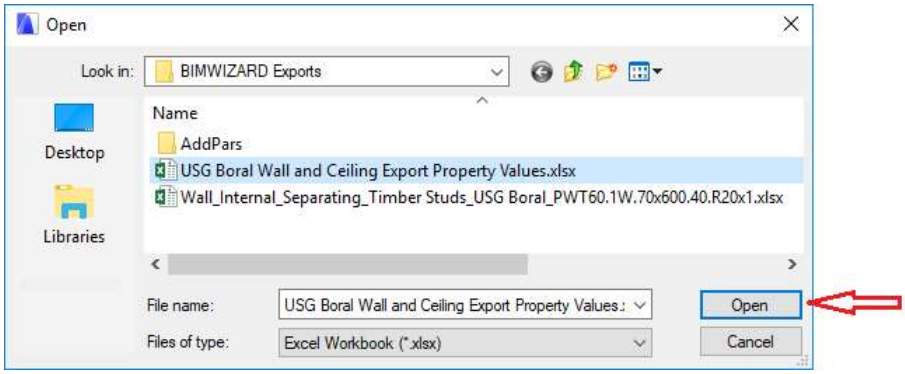




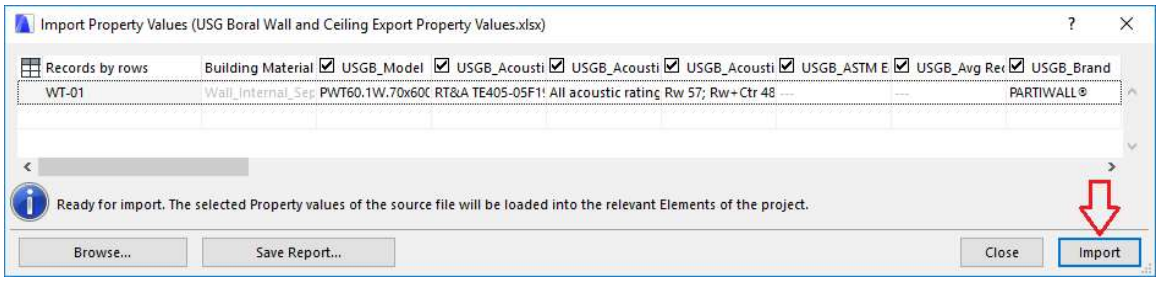
Return to ArchiCAD then navigate to File > Interoperability > Classifications and Properties > Import Property Values into Elements…



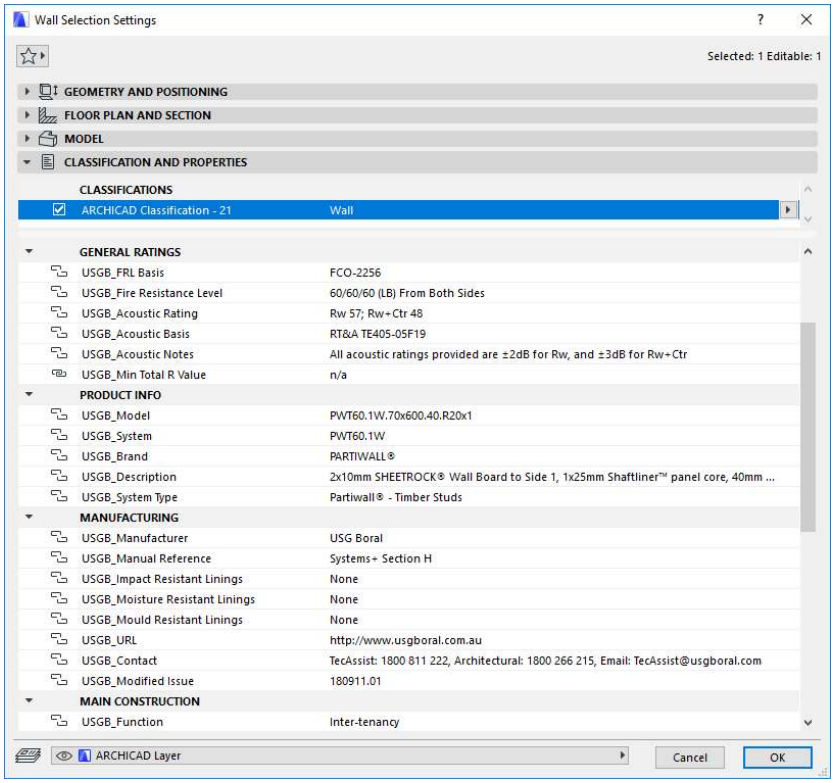
Navigate to the Property Exports file location, select it and click the "Open" button.



Click the "Import" button. Afterwards you should receive an alert that the import was successful.

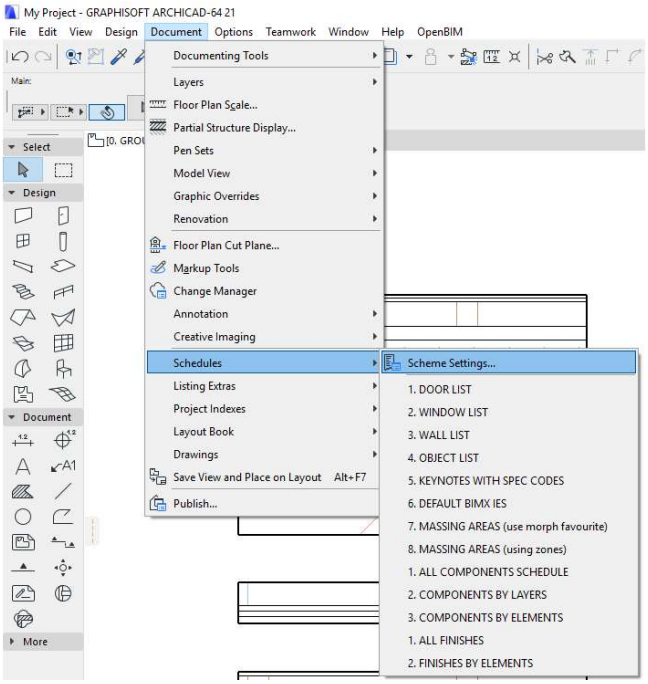


You should now be able to see all the USG Boral properties within our elements(s). Select all placed elements in the Import Project, press Ctrl+C, open your working project (aka your project) and press Ctrl+V in a plan view to place the elements, complete with all associated attributes and properties.

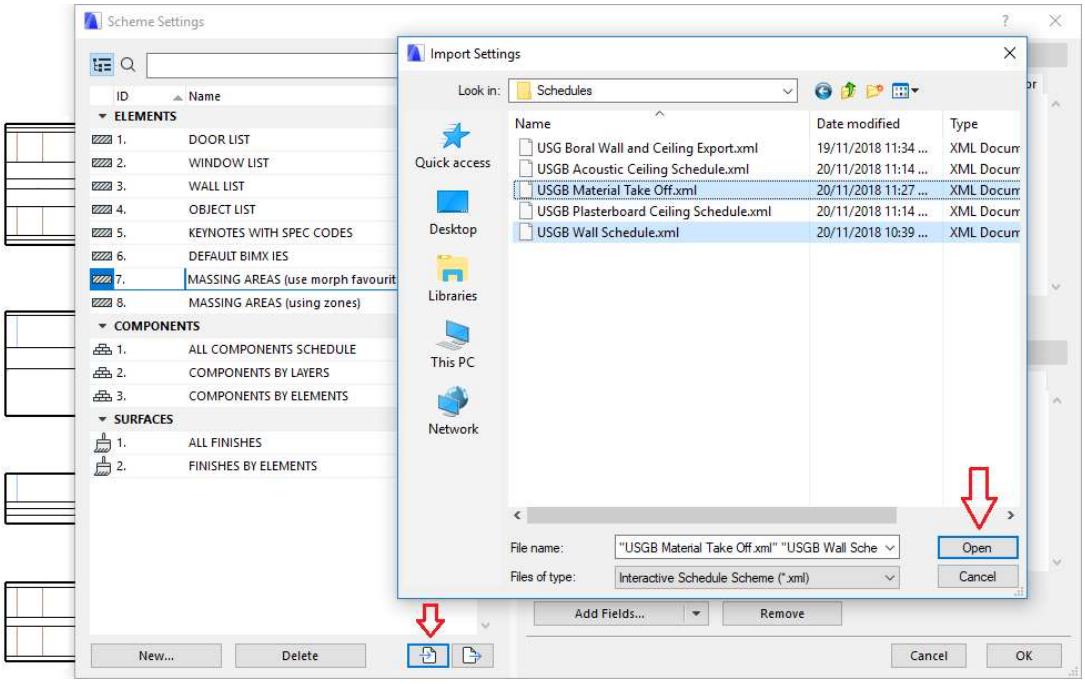


2.5.1.3 *Importing Schedules and/or Material Take Off*

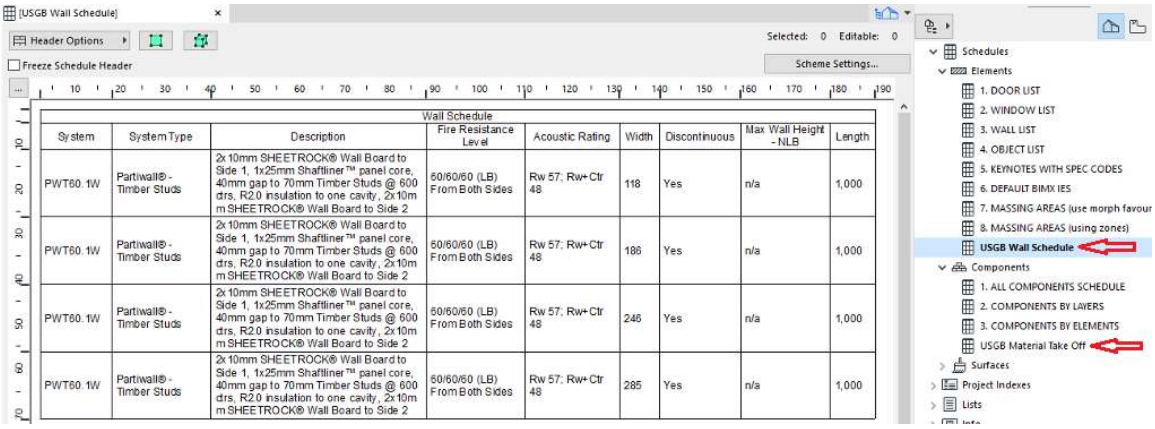
To use USG Boral pre-made schedules (Wall, Plasterboard Ceiling, Acoustic Ceiling, Material Takeoff) in your project, navigate to Document > Schedules > Scheme Settings…



Click the “Import” button, navigate to the ‘Schedules’ folder included in the BIMWIZARD® download materials, select any combination of desired schedules and click the “Open” button.

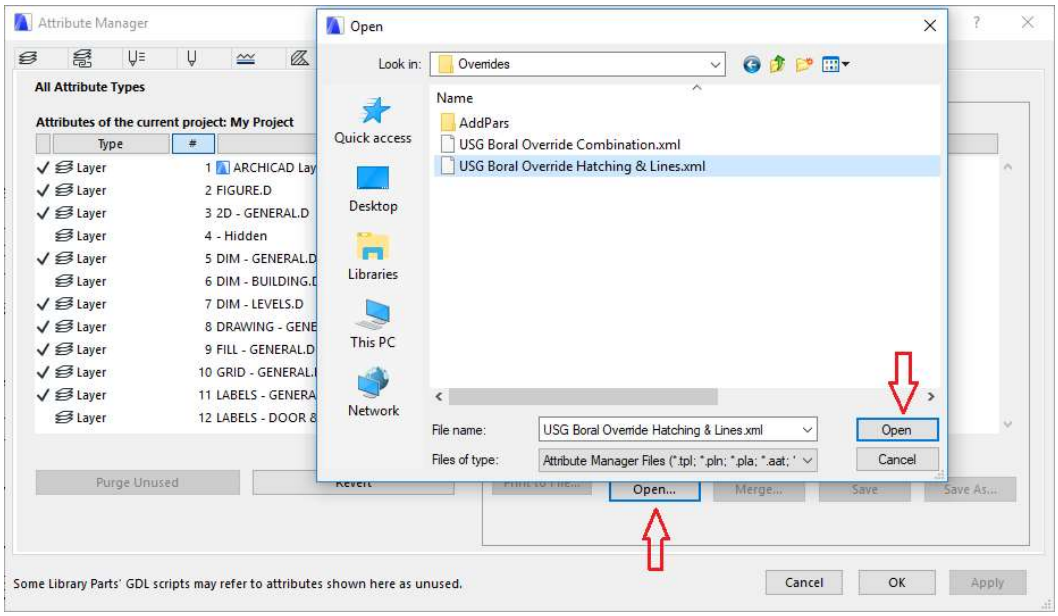


The automatically populated schedule can now be found in the project navigator. You may customise and change these schedules any way you prefer. These schedules are linked to several pre-defined USG Boral element properties, so renaming or altering the values of those properties may cause the schedules to not behave as intended.

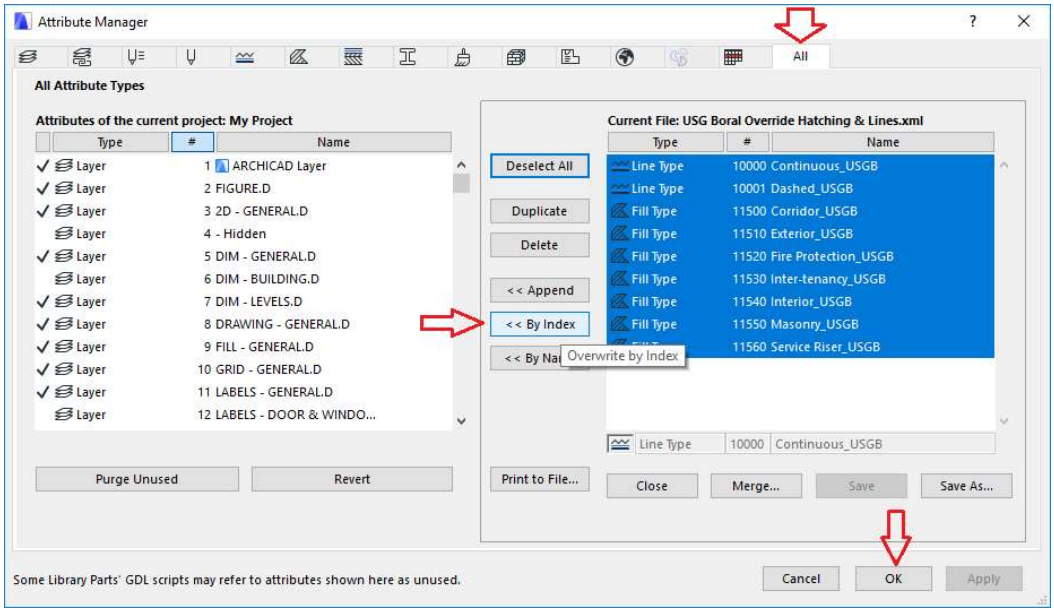


2.5.1.4 *Importing Override Combination*

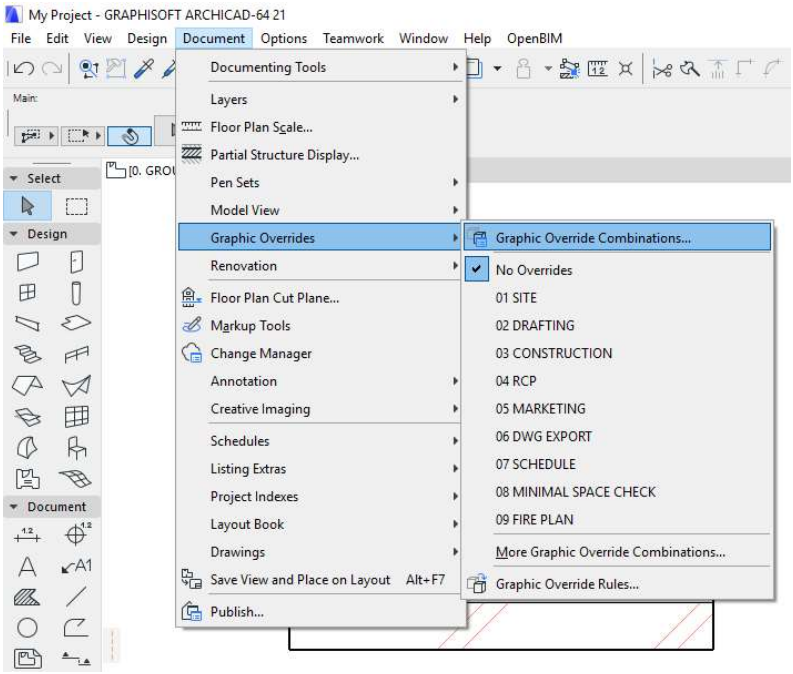
To use the USG Boral override combination for simplified element view in your project, open the Attribute Manager, click the “Open…” button, navigate to the ‘Overrides’ folder included in the BIMWIZARD® download materials, select the ‘USG Boral Override Hatching & Lines.xml’ file and click the “Open” button.



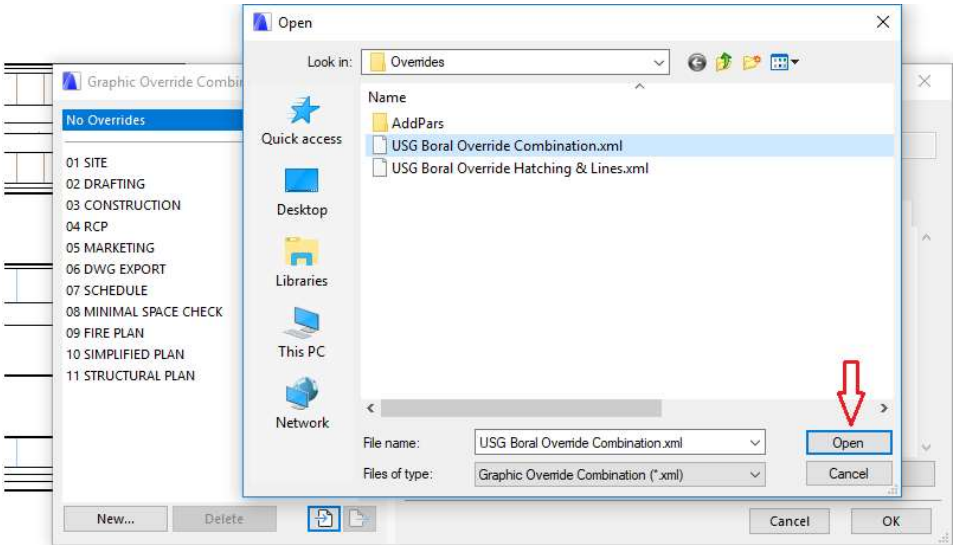
Click the 'All' tab, select all attributes in the right pane then click the "<< By Index" button as the overwrite method. Click the "OK" then "Proceed" or "Modify" button to exit.



Navigate to Document > Graphic Overrides > Graphic Override Combinations…



Navigate to the 'Overrides' folder included in the BIMWIZARD® download materials, select the 'USG Boral Override Combination.xml' file and click the "Open" button.



You can now activate the USG Boral override combination for simplified element views from the Override menu.

Elements will be hatched according to their Function property

Discontinuous walls will show a dashed border

Fire Rated elements will show a red border

Elements with impact resistant linings will have a purple fill

Elements with moisture resistant linings will have a blue fill

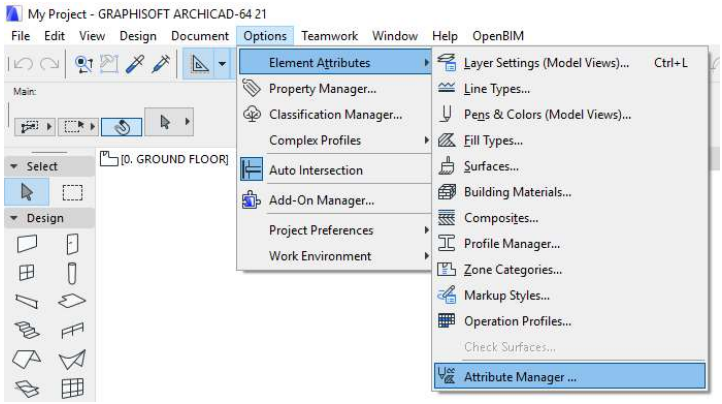
Elements with impact and moisture resistant linings will have a violet fill

Elements with mould resistant linings will have a green fill

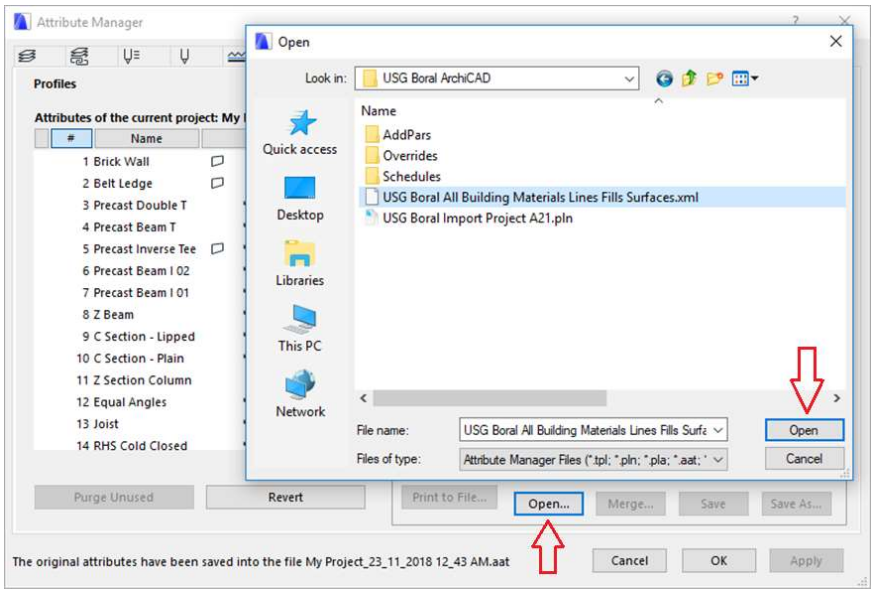
2.5.2 Bring in all USG Boral Attributes

All USG Boral attributes exist in the Import Project file. When using USG Boral ArchiCAD content you can either choose to bring in only the attributes needed for your project or to bring in all USG Boral attributes. The first option has the advantage of keeping your project Building Materials library from growing too large, but comes with the risk of you forgetting to import the appropriate attributes before another bit of USG Boral material that depends on those attributes, in which case the attributes will be incorrectly assigned or left as 'Missing'. The second option has the advantage of not needing to worry about any steps in any process that involve importing USG Boral attributes via the Attribute Manager.

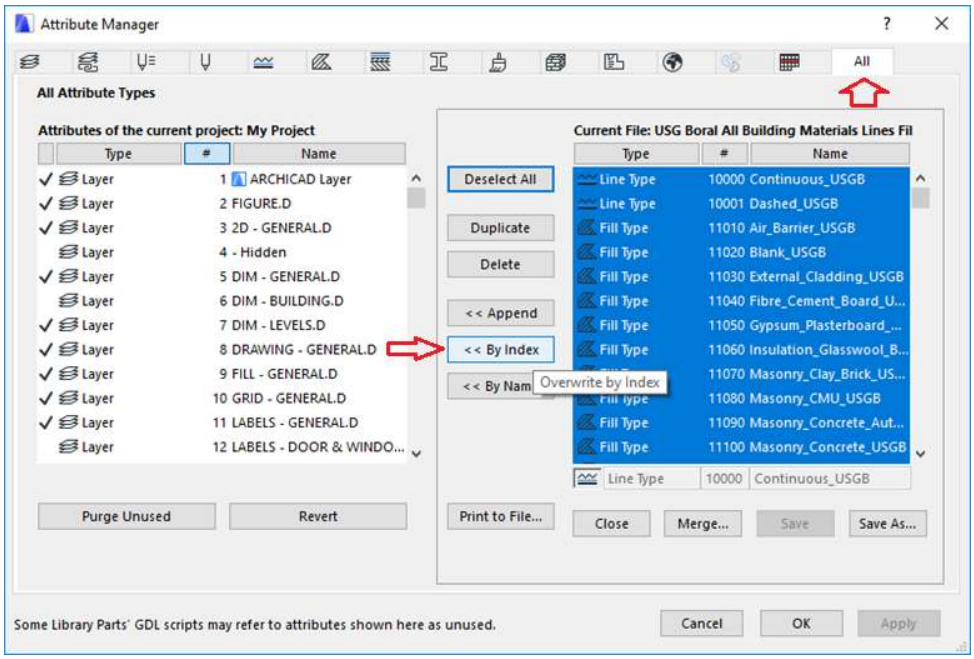
To import all USG Boral attributes, open your project and navigate to Options > Element Attributes > Attribute Manager…



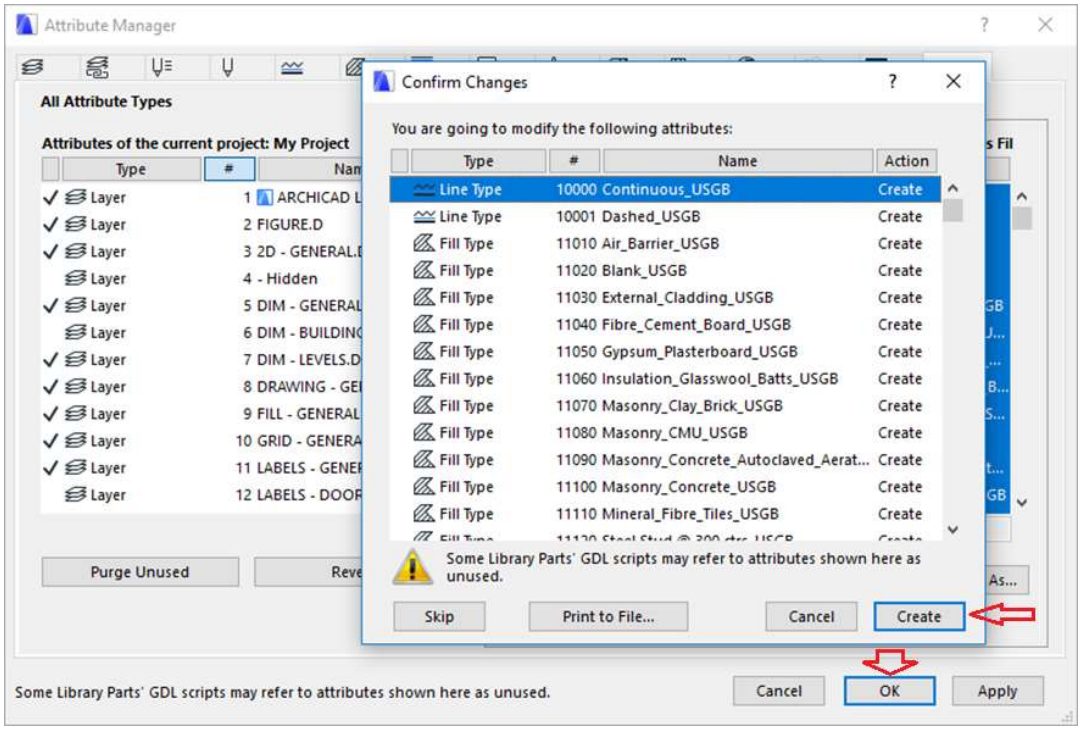
Click the "Open.." button, then navigate to the USG Boral download materials, select the 'USG Boral All Building Materials Lines Fills Surfaces.xml' file and click the "Open" button.



Select the 'All' tab, then select all attributes in the right pane and click "<< By Index" as the overwrite method.



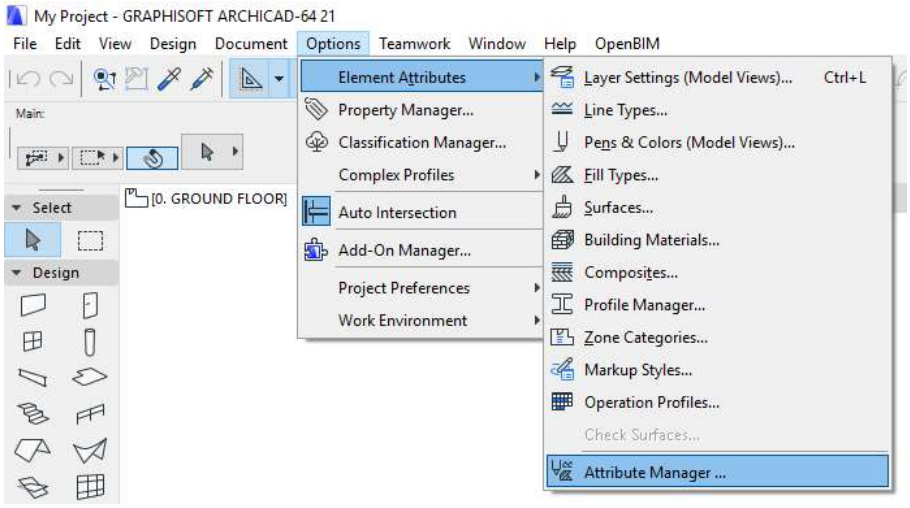
Click the "OK" button, then click the "Create" or "Proceed" button as appropriate.



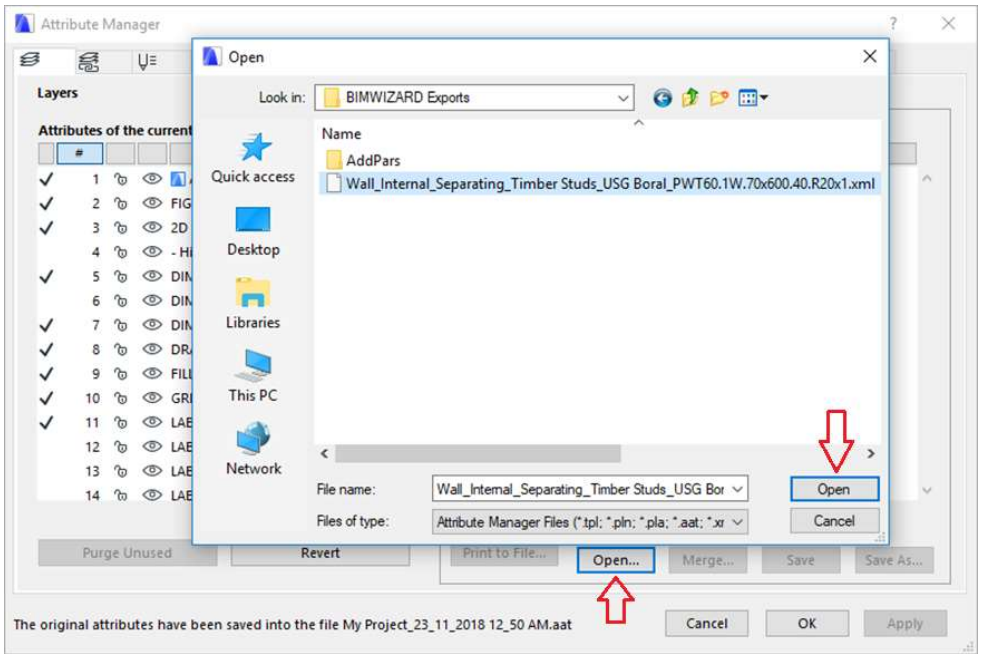
2.5.3 Bring in Composites only (without importing all attributes first)

If you only need to import composites and don't plan to use USG Boral properties, schedules or overrides, you can bring them directly into your project rather than using the Importer Project file first. If you have imported all USG Boral attributes then you can follow the composite import procedure in the standard import method, otherwise use these instructions.

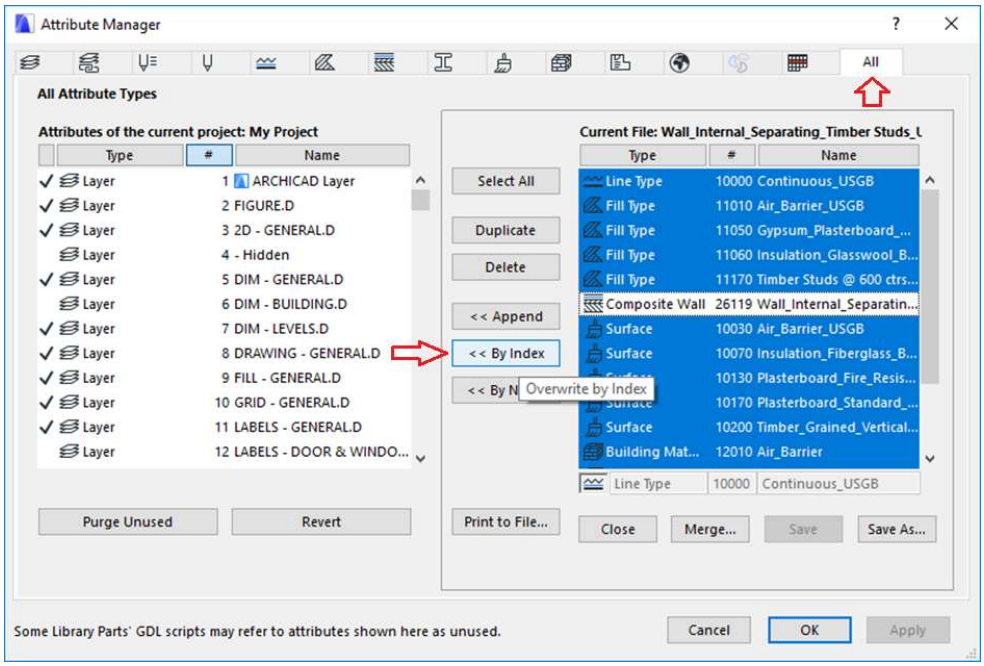
In your project, navigate to Options > Element Attributes > Attribute Manger…



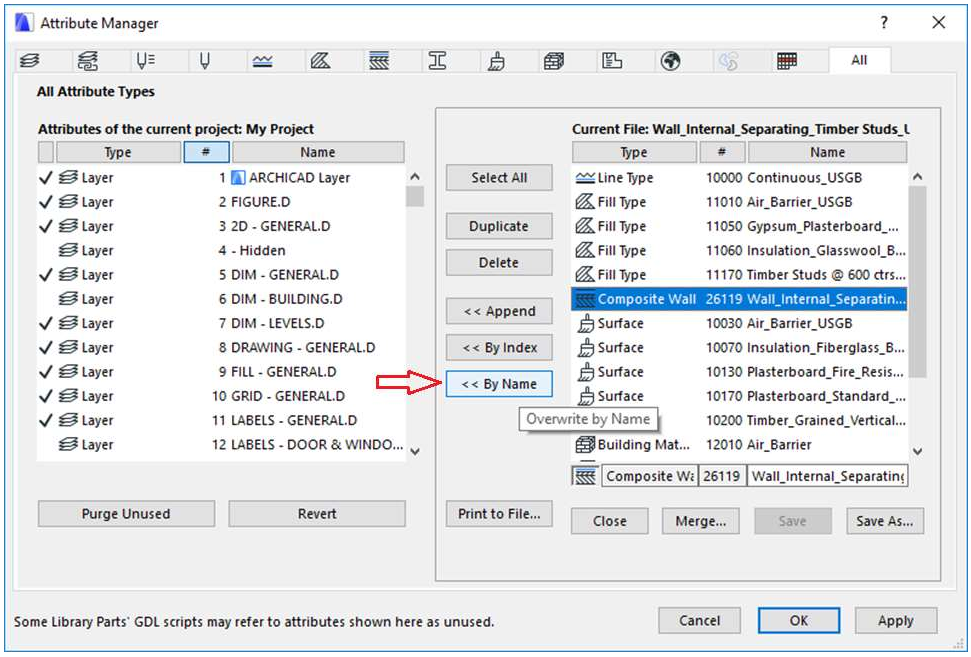
Click the "Open…" button, then navigate to your save location. Select the desired system and click the "Open" button.



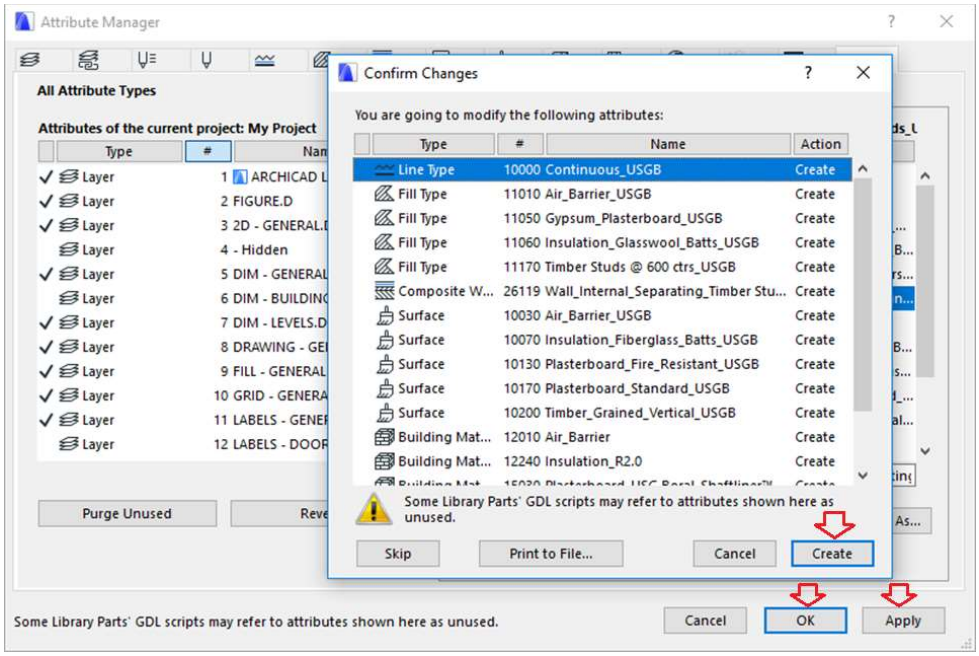
Select the 'All' tab, then select all the attributes in the right pane except for the composite and click "<< By Index" as the overwrite method.



Next, select only the composite in the right pane and click "<< By Name" as the overwrite method.

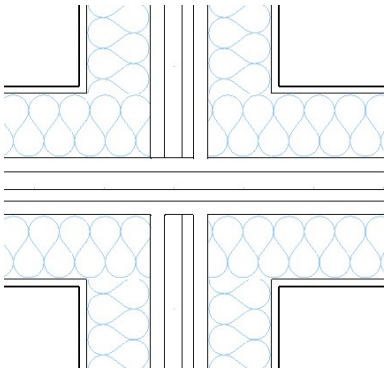


Click the “Apply” button, then click the “Create”, “Proceed” or “Modify” button as appropriate. To bring in additional composites, click the “Close” button and repeat the previous steps. To exit click the “OK” button.

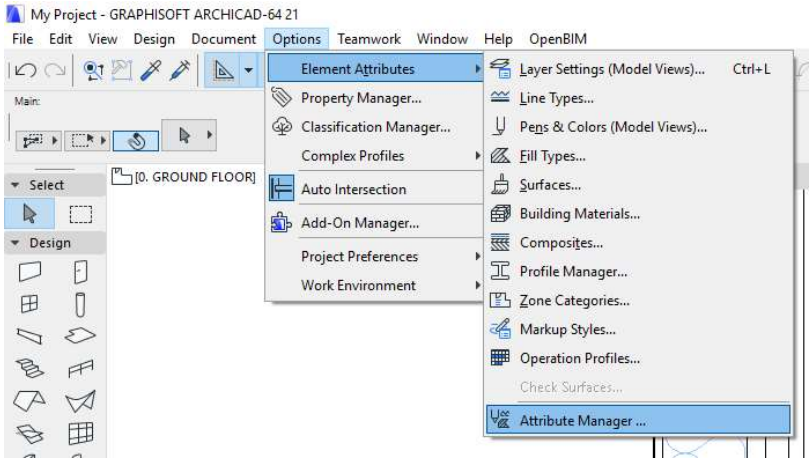


2.5.4 Fire Barrier Intersections

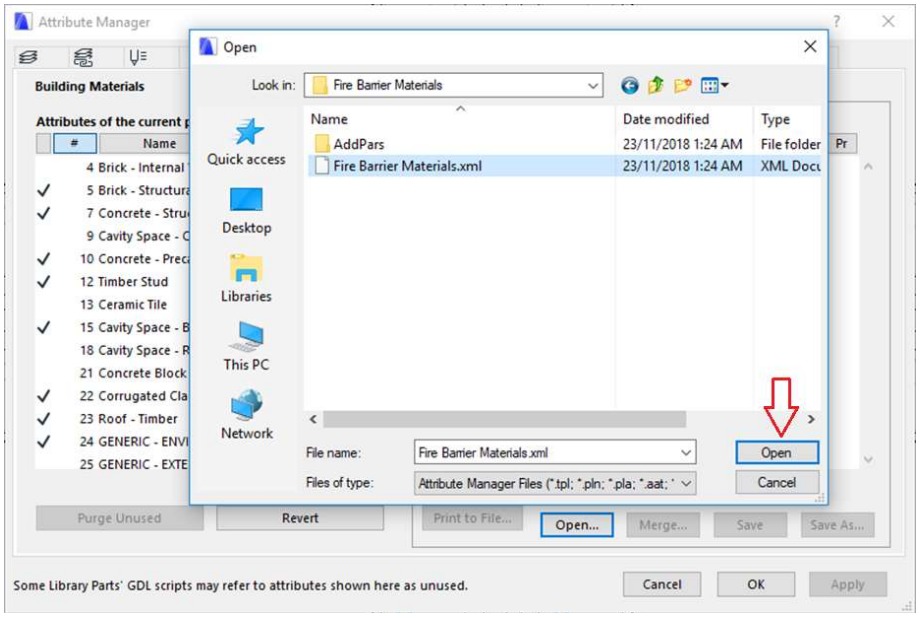
There are several system types in the USG Boral catalogue such as Partiwall® and IntRwall® that are triple membrane systems. Should one of these systems cross another triple membrane system you may get an incorrectly showing intersection where the central plasterboard fire barrier is disconnected in one direction.



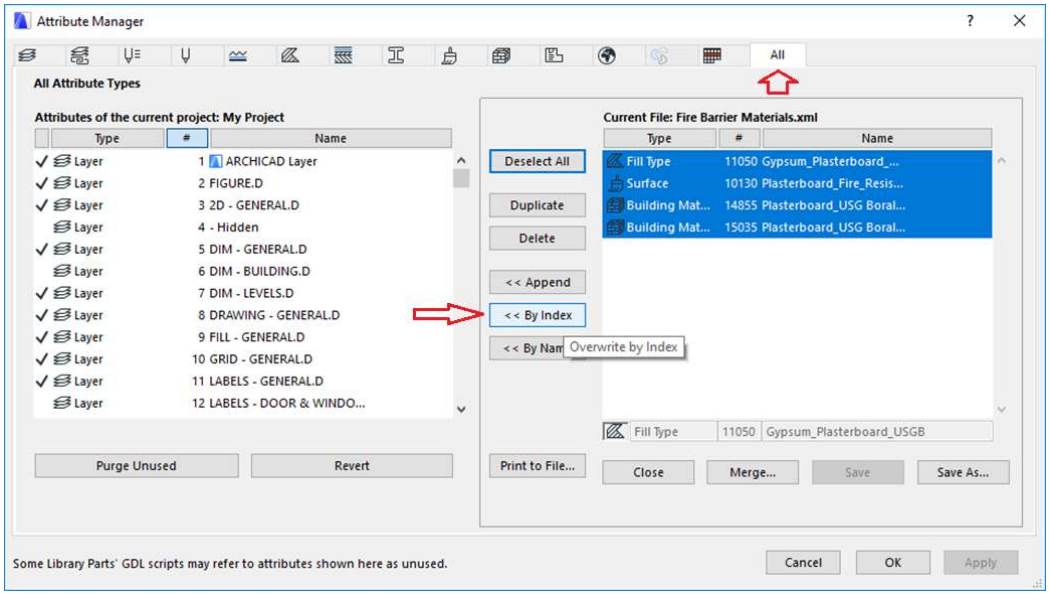
To fix this, navigate to Options > Element Attributes > Attribute Manager…



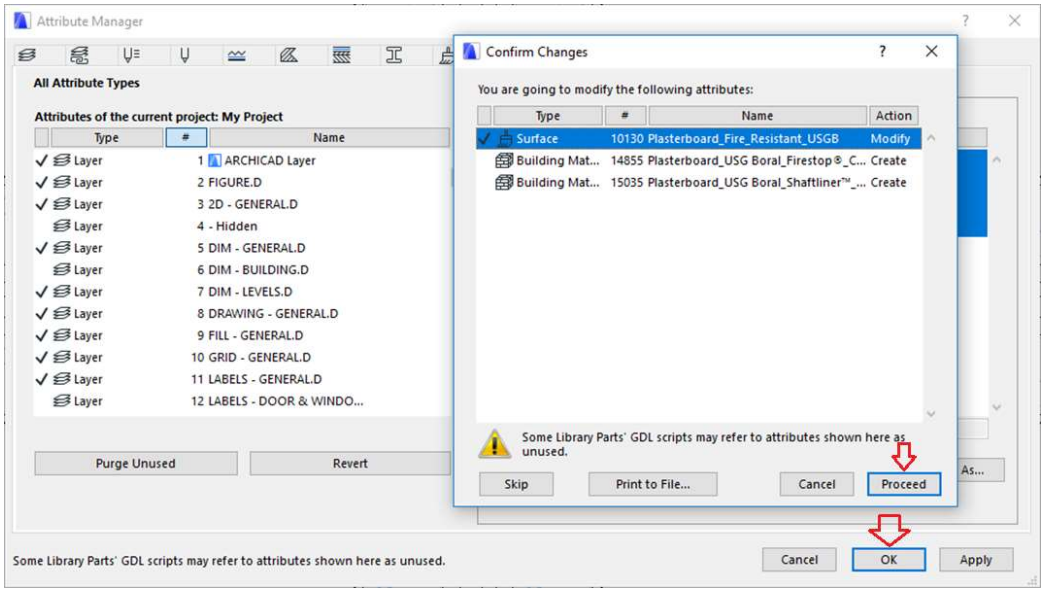
Navigate to the Fire Barrier Materials folder of the USG Boral downloaded materials, select the 'Fire Barrier Materials.xml' file and click the "Open" button.



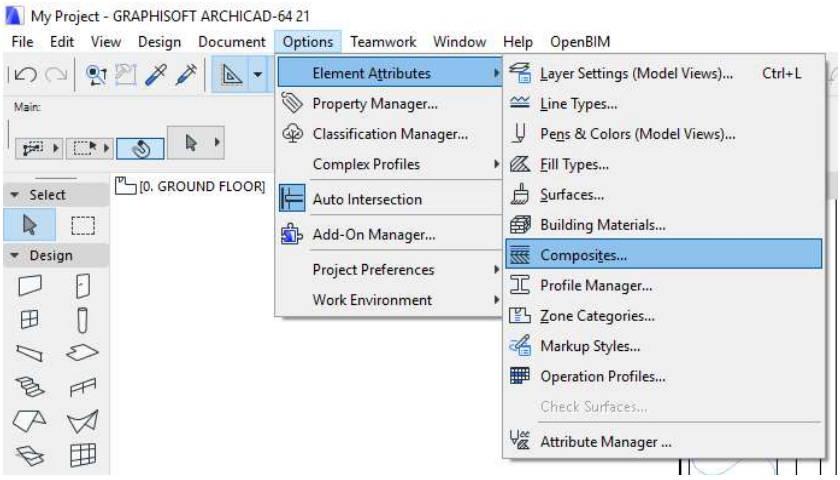
Select the 'All' tab, then select all attributes in the right pane and click "<< By Index" as the overwrite method.



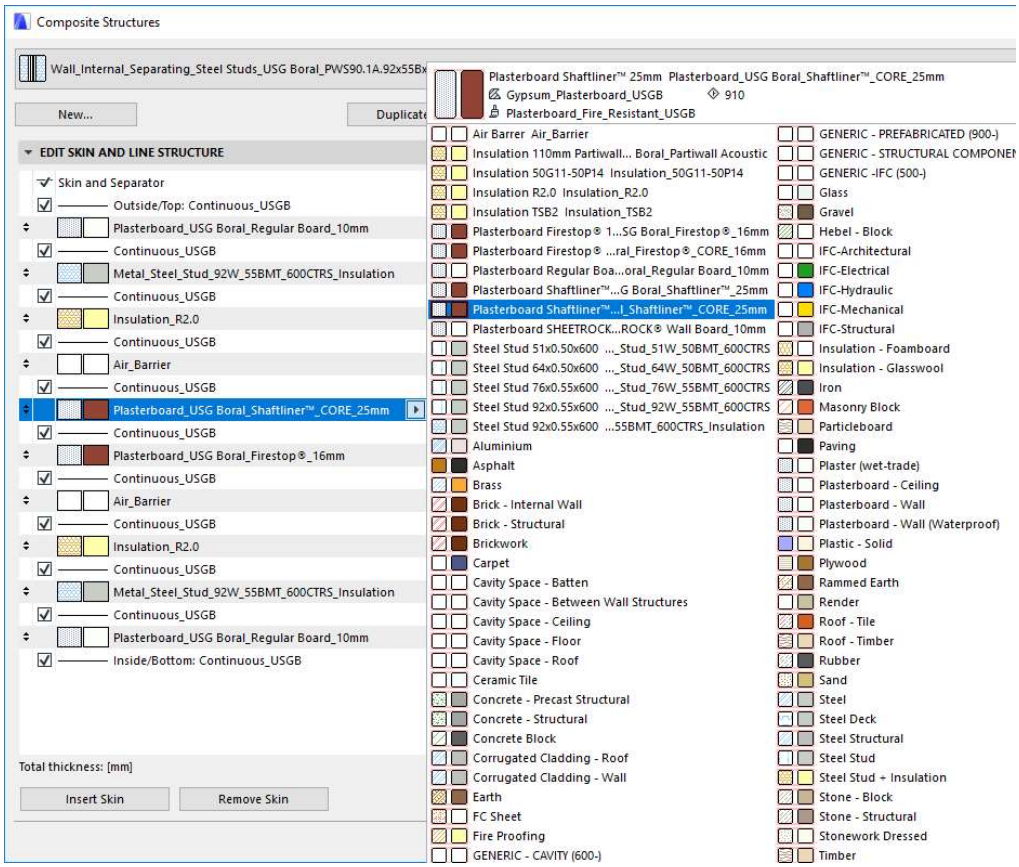
Click the "OK" button, then click the "Create", "Proceed" or "Modify" button as appropriate.

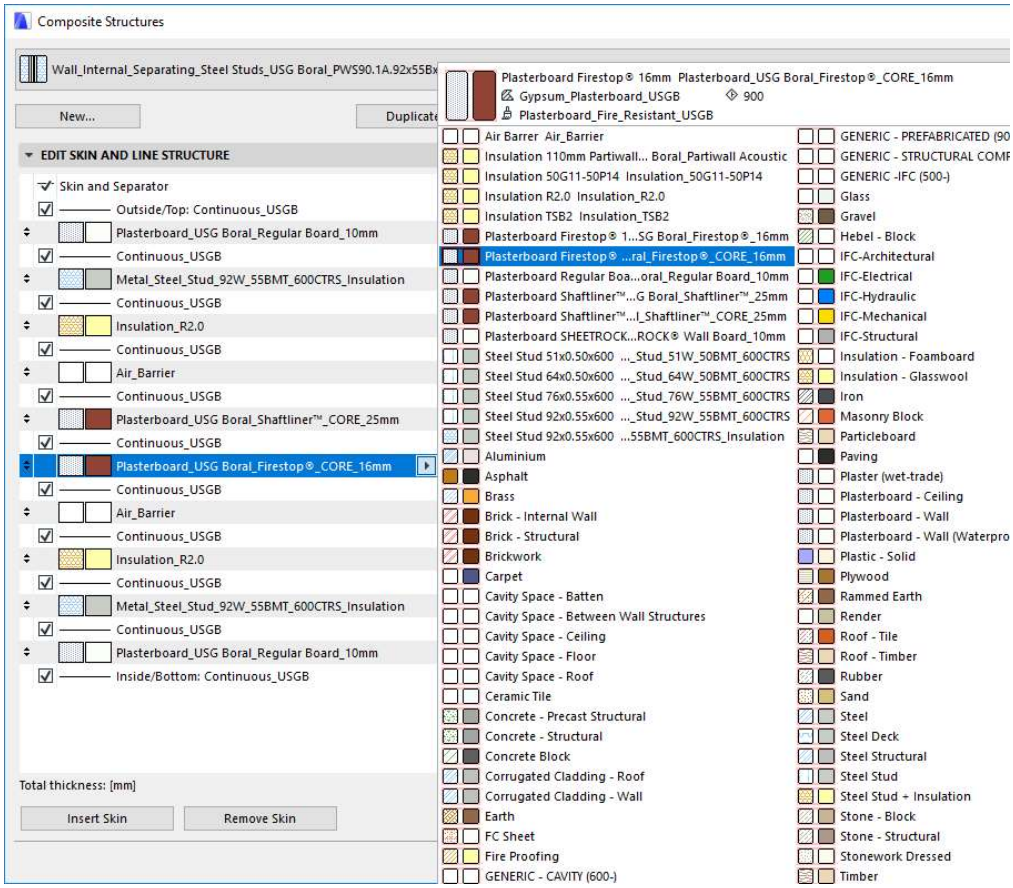


Navigate to Options > Element Attributes > Composites…

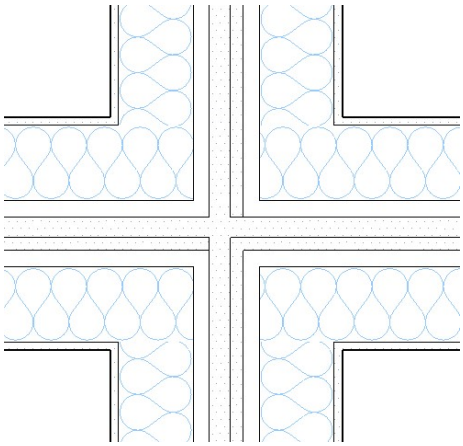


Choose the triple membrane system(s) involved in the intersection and then change the central plasterboard fire barrier materials (Shaftliner™ and/or 16mm Firestop®) to their alternate versions which contain "CORE" in their names. These alternate materials have much higher priorities but the same material ID.





The intersection will now appear correctly.



2.5.5 Attribute Manager Overwrite Method

In the ArchiCAD attribute manager, there are 3x buttons that allow the user to save imported attributes from the right (temporary) pane to the left (project) pane: “Append”, “By Index” and ‘By Name”. All USG Boral attributes are assigned specific index numbers to assure their import is consistent in varied project environments. All non-composite attributes will

have the same index number even in future updates and must be imported 'By Index' because this is how parent attributes like Building Materials and Composites know to find them.

Composites however, have semi-unique index numbers that may change with each new database update. This is due to ArchiCAD's limit of 32,766 index numbers. Because of this, USG Boral composites must be imported 'By Name'.

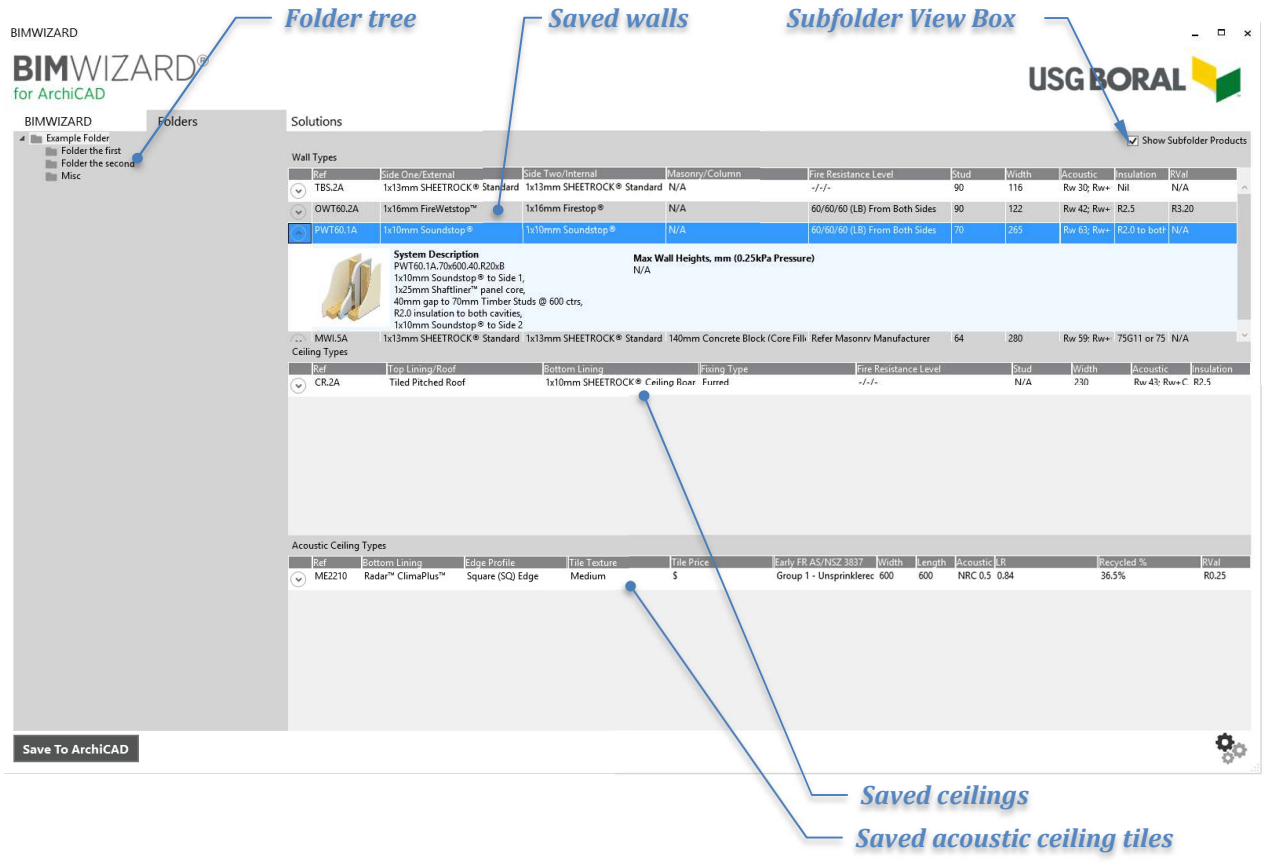
It is never good practice to import USG Boral material using the 'Append' overwrite method as this will create duplicate copies of some materials and cause others to be assigned incorrectly.

2.6 Tabs

In addition to the standard page, BIMWIZARD® has 2x other pages provided to make the design process as convenient as possible: the Folders page and the Solutions page.

2.6.1 Folders Tab

The Folders page can be accessed anytime by clicking the Folders Tab at the top of the BIMWIZARD® window. This page is used for storing and organising systems for later use. It will initially be unpopulated but systems can be added to it from the BIMWIZARD® main page or the Solutions page. The below image is an example folder structure in the folders page.



2.6.1.1 Folder tree

Initially, there will be a single, empty folder here, but folders and subfolders can be easily added, renamed, copied or deleted using the context menu (right mouse click).

2.6.1.2 Saved Wall, Ceiling and Acoustic Ceiling Tiles Areas

These areas are where the saved systems of the active folder appear. The columns and rows here behave the same as in the results area of the main BIMWIZARD® page, allowing each system to be expanded and saved to ArchiCAD with the Save To ArchiCAD button.

2.6.1.3 Subfolder View Box

If this box is unticked, only systems within the selected folder will be visible in the Saved Systems areas. If the box is ticked, all systems in any subfolders (including nested subfolders) will appear as well.

2.6.2 Solutions Tab

The Solutions page can be accessed anytime by clicking the Solutions Tab at the top of the BIMWIZARD® window. The Solutions page is specifically for the early stages of design where not all the details required for detailed wall and ceiling specification might be known. The Solutions Wizard has 3 steps where minimum requirements for satisfying Building Code of Australia (BCA), Australian Standards and industry best practice are determined.

2.6.2.1 Step 1

In Step 1, the project's building class is selected. Consult the BCA for determining the appropriate building class.

2.6.2.2 Step 2

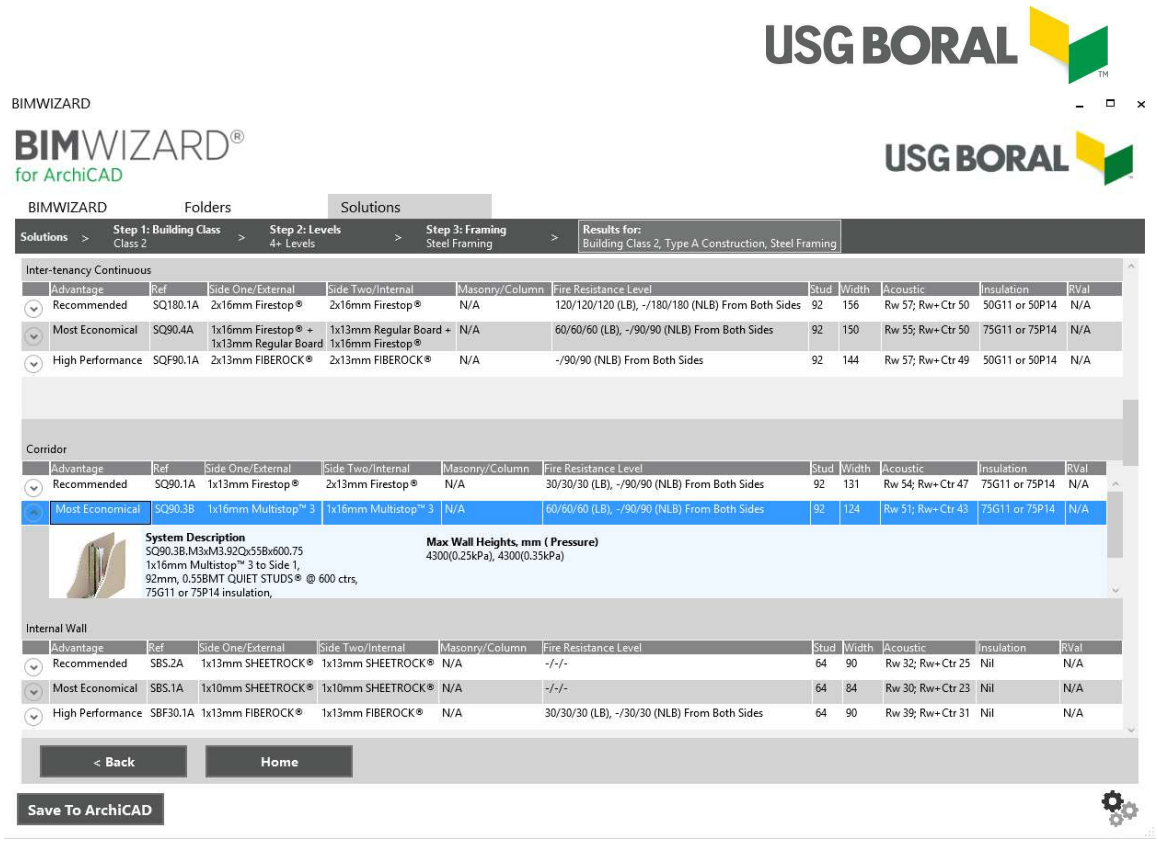
In Step 2, the project's construction type is determined based on the number of stories selected and/or the building class selected in Step 1. Do not include any stories located fully below ground. For stories located partially below ground or at the top of the building and used only for utility and lift plant purposes, consult the BCA.

2.6.2.3 Step 3

In Step 3, the project's primary framing system is identified as Steel or Timber.

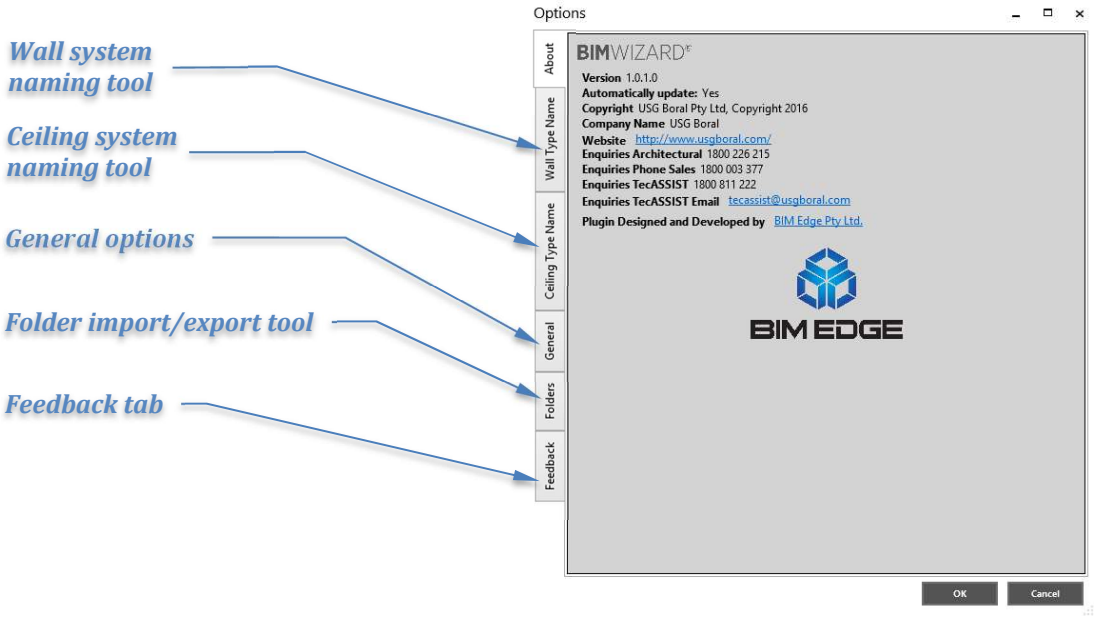
2.6.2.4 Solutions

Once all 3 steps are completed, a set of results will be displayed. Each type of system (i.e. external wall, shaft wall, spanning ceiling, etc) is given their own field of results which are further categorised by their unique advantage (i.e. most economical, high performance, etc). The columns and rows here behave the same as in the results area of the main BIMWIZARD® page, allowing each system to be expanded, saved to ArchiCAD with the Save To ArchiCAD button and/or saved to a folder with the context menu (right mouse click).


BIMWIZARD
BIMWIZARD®
for ArchiCAD
USG BORAL
BIMWIZARD
Folders
Solutions
Solutions > Step 1: Building Class Class 2 > Step 2: Levels 4+ Levels > Step 3: Framing Steel Framing > Results for: Building Class 2, Type A Construction, Steel Framing
Inter-tenancy Continuous
Advantage | Ref | Side One/External | Side Two/Internal | Masonry/Column | Fire Resistance Level | Stud | Width | Acoustic | Insulation | RVal
Recommended | SQ180.1A | 2x16mm Firestop® | 2x16mm Firestop® | N/A | 120/120/120 (LB), -/180/180 (NLB) From Both Sides | 92 | 156 | Rw 57; Rw+Ctr 50 | 50G11 or 50P14 | N/A
Most Economical | SQ90.4A | 1x16mm Firestop® + 1x13mm Regular Board | 1x13mm Regular Board + 1x16mm Firestop® | N/A | 60/60/60 (LB), -/90/90 (NLB) From Both Sides | 92 | 150 | Rw 55; Rw+Ctr 50 | 75G11 or 75P14 | N/A
High Performance | SQF90.1A | 2x13mm FIBEROCK® | 2x13mm FIBEROCK® | N/A | -/90/90 (NLB) From Both Sides | 92 | 144 | Rw 57; Rw+Ctr 49 | 50G11 or 50P14 | N/A
Corridor
Advantage | Ref | Side One/External | Side Two/Internal | Masonry/Column | Fire Resistance Level | Stud | Width | Acoustic | Insulation | RVal
Recommended | SQ90.1A | 1x13mm Firestop® | 2x13mm Firestop® | N/A | 30/30/30 (LB), -/90/90 (NLB) From Both Sides | 92 | 131 | Rw 54; Rw+Ctr 47 | 75G11 or 75P14 | N/A
Most Economical | SQ90.3B | 1x16mm Multistop™ 3 | 1x16mm Multistop™ 3 | N/A | 60/60/60 (LB), -/90/90 (NLB) From Both Sides | 92 | 124 | Rw 51; Rw+Ctr 43 | 75G11 or 75P14 | N/A
System Description
SQ90.3B.M3xM3.92Qx55Bx600.75
1x16mm Multistop™ 3 to Side 1,
92mm, 0.55BMT QUIET STUDS® @ 600 ctrs,
75G11 or 75P14 insulation,
Max Wall Heights, mm (Pressure)
4300(0.25kPa), 4300(0.35kPa)
Internal Wall
Advantage | Ref | Side One/External | Side Two/Internal | Masonry/Column | Fire Resistance Level | Stud | Width | Acoustic | Insulation | RVal
Recommended | SBS.2A | 1x13mm SHEETROCK® | 1x13mm SHEETROCK® | N/A | -/-/- | 64 | 90 | Rw 32; Rw+Ctr 25 | Nil | N/A
Most Economical | SBS.1A | 1x10mm SHEETROCK® | 1x10mm SHEETROCK® | N/A | -/-/- | 64 | 84 | Rw 30; Rw+Ctr 23 | Nil | N/A
High Performance | SBF30.1A | 1x13mm FIBEROCK® | 1x13mm FIBEROCK® | N/A | 30/30/30 (LB), -/30/30 (NLB) From Both Sides | 64 | 90 | Rw 39; Rw+Ctr 31 | Nil | N/A
< Back
Home
Save To ArchiCAD

3 Options

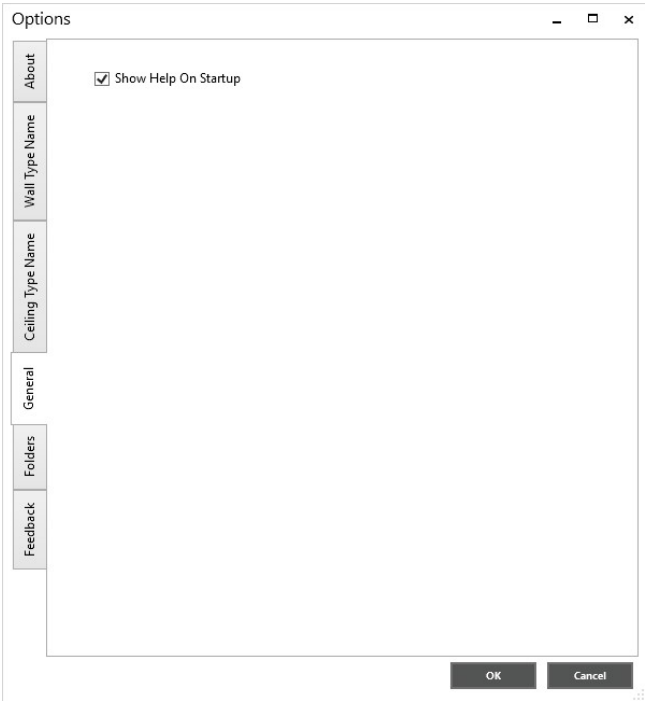
The Options window is for setting user preferences and advanced features.



3.1 General Options

3.1.1 Show Help On Startup

Under general options there is a check box to toggle the help material that appears when BIMWIZARD® is launched.

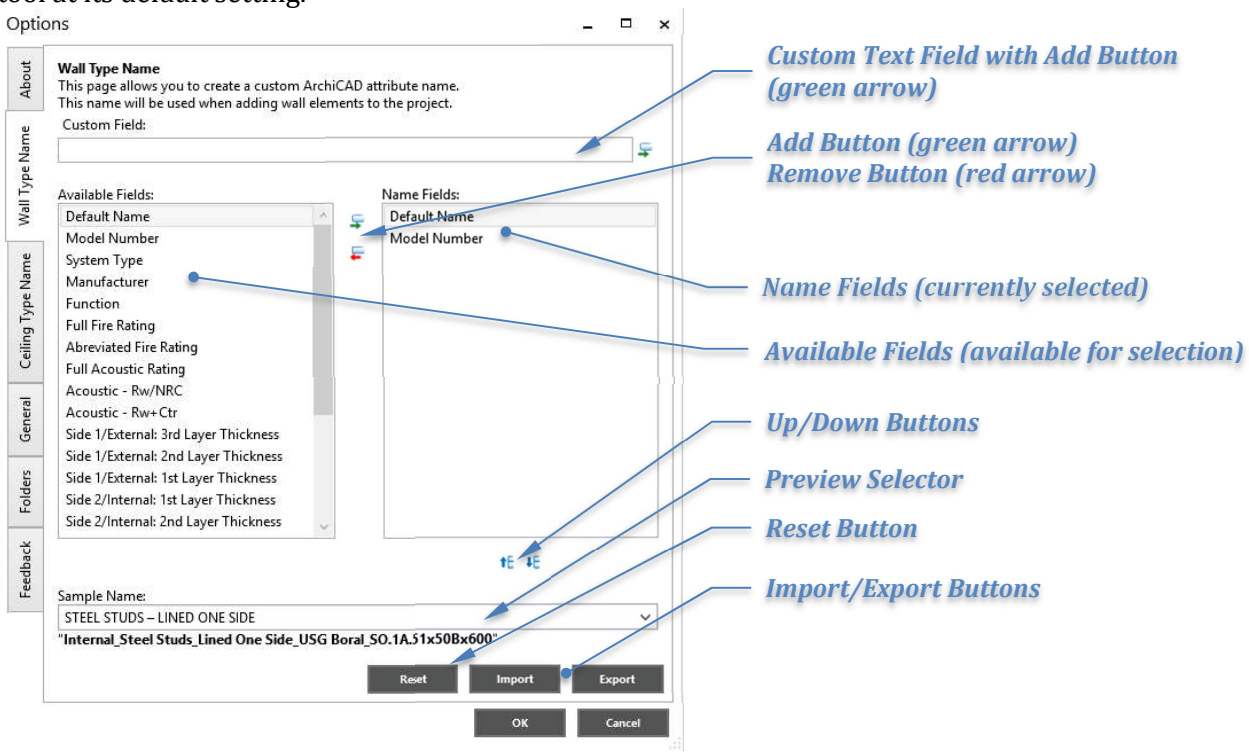


3.2 Advanced Features

BIMWIZARD® has several auxiliary tools available to help further streamline the design and documentation process.

3.2.1 Wall/Ceiling System Naming Tools

BIMWIZARD® now includes a way to automatically rename all systems it generates according to the user's preferences. There are separate tools for walls and ceilings so that they can follow different standards if required. There is also the ability to export and import the standards so they can be stored or shared. Below is an image of the wall naming tool at its default setting.



3.2.1.1 Name Fields

The values (name fields) found in this area determine how BIMWIZARD® will name generated ArchiCAD composites. The default values are 'Default Name' and 'Model Number'. These 2 values, in this order, give the standard USG Boral naming convention. The 'Default Name' value can be removed, but the 'Model Number' value cannot. This is to ensure every generated name is unique. Add name fields to this area from the available and custom field areas with their respective Add buttons and remove name fields from this area with the Remove button.

Tips:

- You can identify the Default Name part of the standard USG Boral naming convention by its ending text, "_USG Boral_", everything after this is the system model number
- Items at the top of the Name Fields area appear first in the family type name
- Check how the current set of naming values will look in the preview text just below the preview selector

3.2.1.2 Available Fields

This area contains all the standard name values that are available to be added to the Name Fields area.

Name Field	Description	Example Value
Default Name	Beginning of standard USG Boral family type name	Wall_Internal_Separating_ Timber Studs_USG Boral_
Model Number	End of standard USG Boral family type name	ST90.2A.FxF.64x50Bx600.50
System Type	Brief description of system	Timber Staggered Studs
Manufacturer	Name of manufacturer	USG Boral
Function	The basic purpose of a wall	Interior
Full Fire Rating	Load bearing and non-load bearing fire rating with direction and RISF	90/90/90 (LB), -/120/120 (NLB) From Both Sides
Abbreviated Fire Rating	Single number to represent the fire rating in minutes	120
Full Acoustic Rating	All applicable acoustic ratings	Rw 64; Rw+Ctr 57; Ln,w 54; Ln,w+CI 49
Acoustic – Rw/NRC	Single number, either Rw or NRC (if acoustic ceiling tile)	64
Acoustic – Rw+Ctr	Single number, Rw+Ctr	57
Acoustic – Lnw/CAC	Single number, either Lnw or CAC (if acoustic ceiling tile)	54
Side 1/External: 3rd Layer Thickness	Thickness in mm of third layer of lining on the first or external side of the wall	10
Side 1/External: 2nd Layer Thickness	Thickness in mm of second layer of lining on the first or external side of the wall	10
Side 1/External: 1st Layer Thickness	Thickness in mm of first layer of lining on the first or external side of the wall	10
Side 2/Internal: 1st Layer Thickness	Thickness in mm of first layer of lining on the second or internal side of the wall	10
Side 2/Internal: 2nd Layer Thickness	Thickness in mm of second layer of lining on the second or internal side of the wall	10
Side 2/Internal: 3rd Layer Thickness	Thickness in mm of third layer of lining on the second or internal side of the wall	10
Top Layer Thicknesses – All	Thickness in mm of all plasterboard layers on top of a ceiling, concatenated	1616
Bottom Layer Thicknesses – All	Thickness in mm of all plasterboard layers on bottom of a ceiling, concatenated	131313

Name Field	Description	Example Value
Masonry Thickness	Thickness in mm of system's masonry component	150
System Width/Tile Width	Width in mm of entire system (except OutRwall® where it's the system less cladding and acoustic ceiling tiles where it's the shorter side of the tile)	134
Tile Length	The longer side of a ceiling tile in mm	1200
Stud Width	The width of a system's stud in mm	92
2nd Stud Width	The width of a system's second stud in mm	92
Track Width (Staggered Stud Only)	The width of a system's track in mm, if different than the stud width	150
Stud BMT (x100)	Base Metal Thickness of a steel stud in mm, multiplied by 100	75
Structural Spacing	Spacing of primary framing members in mm	600

3.2.1.3 Custom Field

This area is used for adding text, numbers or symbols to the naming convention. This is useful for adding separators, like dashes (-) and underscores (_), or labels for values, like adding "FRL " before the Abbreviated Fire Rating field, or giving all USG Boral systems a prefix such as, "Manufacturer-".

Tips:

- Any text added from the Custom Field area will appear in all systems of the same element type (wall/ceiling)
- Some available fields are not populated all the time (e.g. the 2nd & 3rd layer fields, Masonry Thickness, Track Width, etc) so take caution adding custom text before and after these fields
    - If all 3x Side 1 Layer Thickness fields are applied and separated with dashes (-) then a system with 3x layers of 13mm board will appear as "13-13-13". However, under that same naming convention a system with only 1x layer of 13mm board will appear as "--13".
- Some special characters cannot be used in the Custom Field area, these characters simply won't appear if typed or pasted into the field.

3.2.1.4 Preview Selector

Just below this drop down menu is a text string which gives a basic preview of what the current naming convention (determined by the contents and order of the Name Fields area) will look like for the selected system. Choosing a different system will update the preview below. Please note this menu does not change the naming convention in any way.

3.2.1.5 Reset Button

This button will reset the current naming tab to its default settings. This means BIMWIZARD® will resume using the standard USG Boral naming convention. The Reset button only affects one tab at a time, so resetting the Wall Type Name tab will not affect any custom Ceiling Type convention and vice versa.

3.2.1.6 Import/Export Buttons

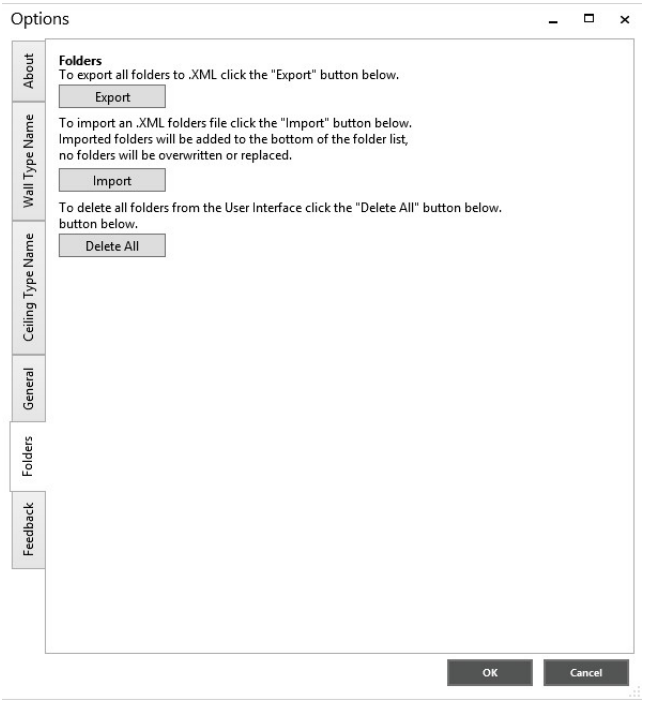
These buttons can be used to export the current custom naming convention as a .BIM file. This file can be imported again later by any BIMWIZARD® user.

Tips:

- This can be a handy method of establishing an organisation naming standard for all utilised USG Boral systems
- Multiple naming standards can be exported and archived
- Wall and Ceiling standards import/export separately

3.2.2 Folder Utilities

The buttons in this area can be used to export the current Folders page folder tree and included systems to an .XML file. This file can be imported again later by any BIMWIZARD® user. Also, there is the Delete All button which clears the Folders page back to its empty, default state.

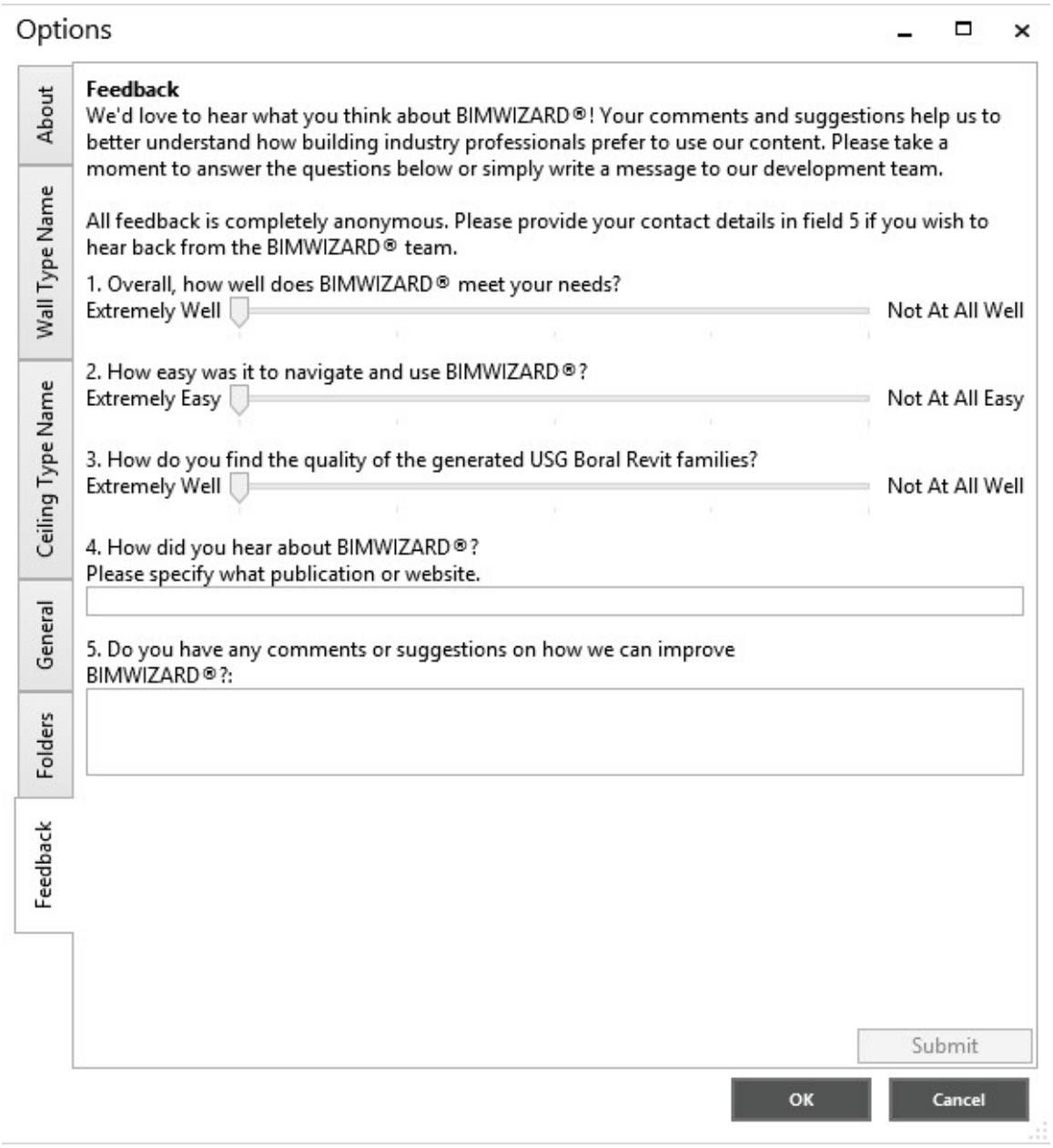


Tips:

- Easy to relocate folders if working on multiple devices
- Send project folders to colleagues
- Archive folders when a project is finished
- Set a folder standard for an organization

3.2.3 Feedback Tab

This area is for sending feedback to the BIMWIZARD® developers. All feedback is carefully considered and incorporated into future development plans wherever possible. The form can be sent without filling out all fields, but the more information we receive, the more valuable the feedback is.



If you wish to be contacted by the development team via email, you can include your contact details in field 5 along with your question/concern. Your details will be handled in accordance with USG Boral's privacy policy https://www.usgboral.com/en_au/legal.html. Response times will vary, but we endeavour to answer all enquiries in a reasonable time frame. If you require more timely assistance, please contact TecAssist at 1800 811 822, TecAssist@usgboral.com or our new LiveChat option at www.usgboral.com/au/tecassist.

4 Customisation

Once placed within an ArchiCAD® project, changes to USG Boral systems are not recommended. Changes to the wall structure may void the fire rating, acoustic rating and/or a handful of other parameters associated with the system and changes to some properties or property names may affect how the system interacts with USG Boral schedules and overrides. It is always safer to return to the BIMWIZARD® interface, find the correct system and replace the incorrect one.

NOTE: there are element aspects that can be changed after system generation without voiding the system information. Some of these elements are listed below:

- Composite name – This is only a suggested naming convention and can be replaced by your own without losing any information.
- Lining location on asymmetric systems – Some wall types have internal structures that are asymmetrical and different linings on either side. With these systems, it may occur that you want to switch the side of the wall that the linings are on (e.g. a masonry upgrade system might have studs and Regular Board on one side but furring channels and Wetstop® on the other, but you want the Wetstop® on the stud side instead). You may swap the linings but take care not to alter the number of layers or thickness of either lining. It's easier to keep the material layers intact and drag them into place rather than delete, replace or modify the layers.
- Material aesthetics – You may change the graphics and appearance of materials to suit your project style. This includes pens, colours, line types, fills and surfaces. Keep in mind that if you import additional USG Boral material, it may overwrite any changes made if the index numbers haven't been changed. It is not recommended to change the surface grid pattern on acoustic ceiling tile materials.
- Generic materials – Many of our systems contain generic materials that we do not manufacture such as cladding or flooring. You may swap these out for your own materials so long as they match the description given and meet or exceed any specified requirements.
- The Priorities of USG Boral building materials are set for optimised intersection display, however there is no requirement to use our priority settings.
- The composite skin type of USG Boral composites may be changed as needed.
- Index numbers of USG Boral composites may be changed (and in fact may change between BIMWIZARD® updates). Index numbers of all other USG Boral attributes should be left unchanged (for the benefit of future imports) unless you are altering said attribute in which case resetting the index number is advised.

5 Schedules and Overrides

Included in the USG Boral download materials are several schedules and an override combination that are provided to make USG Boral ArchiCAD elements more easily documented.

- Wall and Ceiling element schedules come in 3 varieties: Wall, Plasterboard Ceiling, Acoustic Ceiling Tiles. These schedules are tied to custom USG Boral properties which must be imported to the project before the schedule, otherwise the scheme rules won't be applied correctly. Renaming or deleting USG Boral element properties may affect the behaviour of these schedules.
- The Material Take Off component schedule is set to pick up wall and slab elements and lists their comprising materials by building material ID, not building material name. This is because some materials have a different name to serve a different purpose (different fill, different priority, etc.) but are actually the same real-world construction material and should be combined in a material take off.
- The Wall and Ceiling Export element schedule is used for the exporting, updating and importing of USG Boral element properties. This schedule is meant to be used in the 'USG Boral Import Project A21.pln' file where the property manager is populated with all and only USG Boral element properties. The schedule can be used in other project files, however if not all USG Boral element properties are imported or if any have been renamed or if any other properties exist, the exported property file will not match the format of the property files exported from BIMWIZARD® and will require careful copy/pasting.