# 2020 Fusion

## What's New in Version 6?

*(Up to and including Version 6.5)*

# Introduction

**Welcome to 2020 Fusion Version 6!**

2020 Fusion Version 6 represents the culmination of an exciting, intensive and far reaching period of development – the centrepiece of which has been the redesign of the application's graphical rendering mechanism.

As part of this exercise, further effort has also been applied to 2020 Fusion's use of 'background processing', with the application now also able to generate on-screen renders in the background – the benefit being that designers are able to continue with other tasks whilst a 2020 Fusion image is being generated. This work complements the background processing development previously delivered in respect of printing, exporting, 360° Panorama creation and movie generation.

This new release has also been produced in direct response to customer feedback in specific areas; for example, significant changes have been made to the way in which named views are created, saved and recalled. This results from requests to provide a solution that is easier to understand and simpler to access.

Focus has also been closely given to Fusion's user interface and user experience, with many smaller-scale enhancements being made with the primary objective being to simplify the design process, either by making the product more intuitive, or by taking steps to reduce the overall 'click count'.

New preferences have also been introduced across a range of areas, giving designers even greater flexibility in configuring the application to operate in the best way possible for their working environment.

Details of the new features and enhanced functionality in 2020 Fusion Version 6 are listed under a series of general headings, as follows.

# Dimensioning

## Automatic Removal of Duplicate Installation Dimension Rails (v6.1)

2020 Fusion's dimensioning system has been further optimised so that unnecessary duplication of installation symbol dimension rails is avoided. The result is a cleaner and tidier interface, as illustrated below:
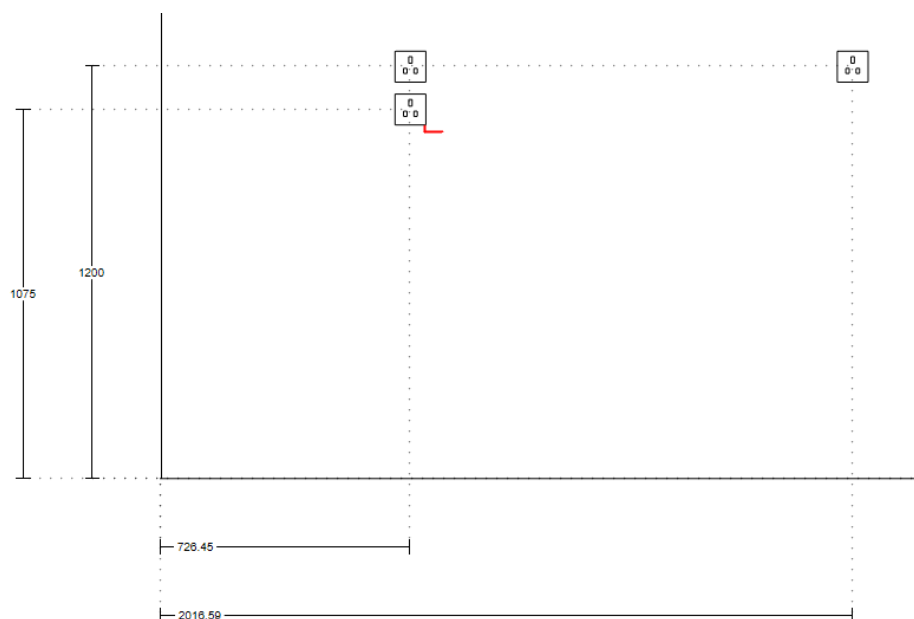
## Auto-Dimension Units Not Parallel With Walls (v6.2)

Real rooms generally do not have walls with perfect 90° interior angles. On such walls, cabinets would ordinarily be offset slightly and would therefore not run perfectly parallel with the wall to which they are aligned.

Previously in 2020 Fusion, if a run of cabinets was not parallel with a wall, then those units would not be auto-dimensioned on that wall. Designers would generally have to compensate for this through the addition of manual dimensioning, which was troublesome and time-consuming. New functionality in Version 6.2 allows runs of cabinets which are offset at a slight angle to a wall to still be auto-dimensioned on that wall, even though the units are not exactly parallel to it. This new behaviour applies to both plan and elevation views.
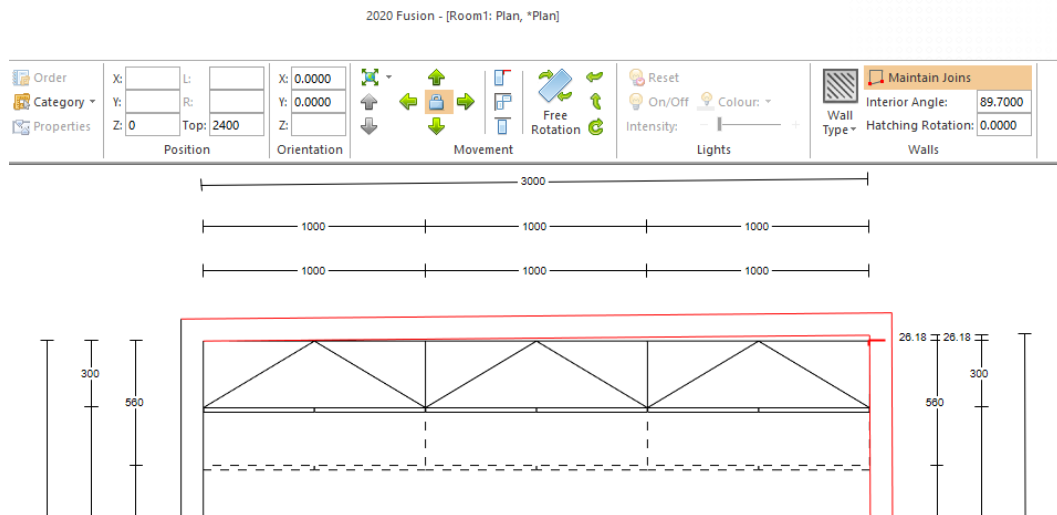


A user preference has also been added in support of this new functionality, allowing a designer to specify the default value for how far away non-parallel units can be from a wall before they will no longer be given wall dimension rails and will, instead, be treated as island units.
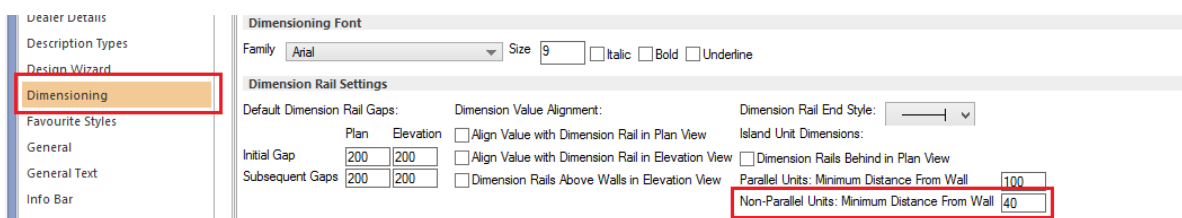


The corresponding value can now also be modified on a per design basis by opening the 'rail configuration options' dialog in the 'Rail Configuration' panel of the 'Annotate' ribbon.
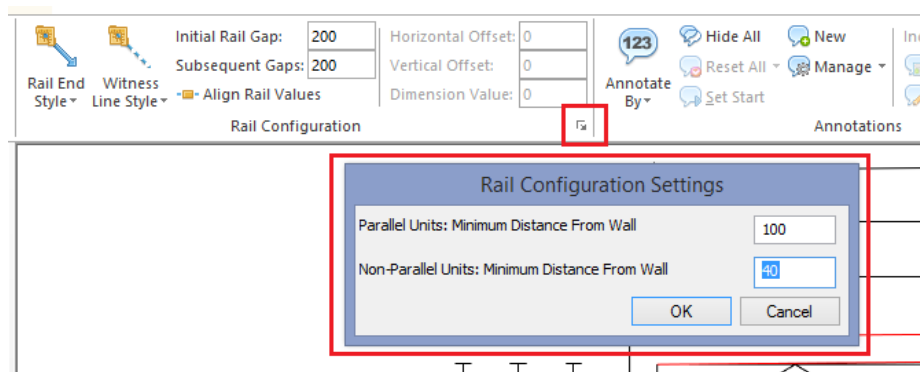
This new dialog also now allows the designer to set the equivalent value for units that are parallel to walls on a per design basis; this was not previously possible in earlier versions of the application.

## Additional Default Settings for Predefined Views (v6.3)

Following the addition of 'predefined views' to the new named views interface in Version 6.1, users are now increasingly aware of these automatically generated named views and what they can offer. Effective from Version 6.3, additional default options are now provided, allowing users to even more extensively configure the display settings for their predefined tiling, worktop and installation views.

Specifically, the new options are as follows:

- Display Fixture Dimensions by default for Installation and Tiling predefined views.
- Display Gap Dimensions by default for Installation, Tiling, and Worktop predefined views.
- Display Grain Direction and Worktop Availability symbols by default for Worktop predefined views.
- Display the Unit List/Installation Symbols Key by default for Worktop and Installation predefined views.

*New Options for Predefined Views*
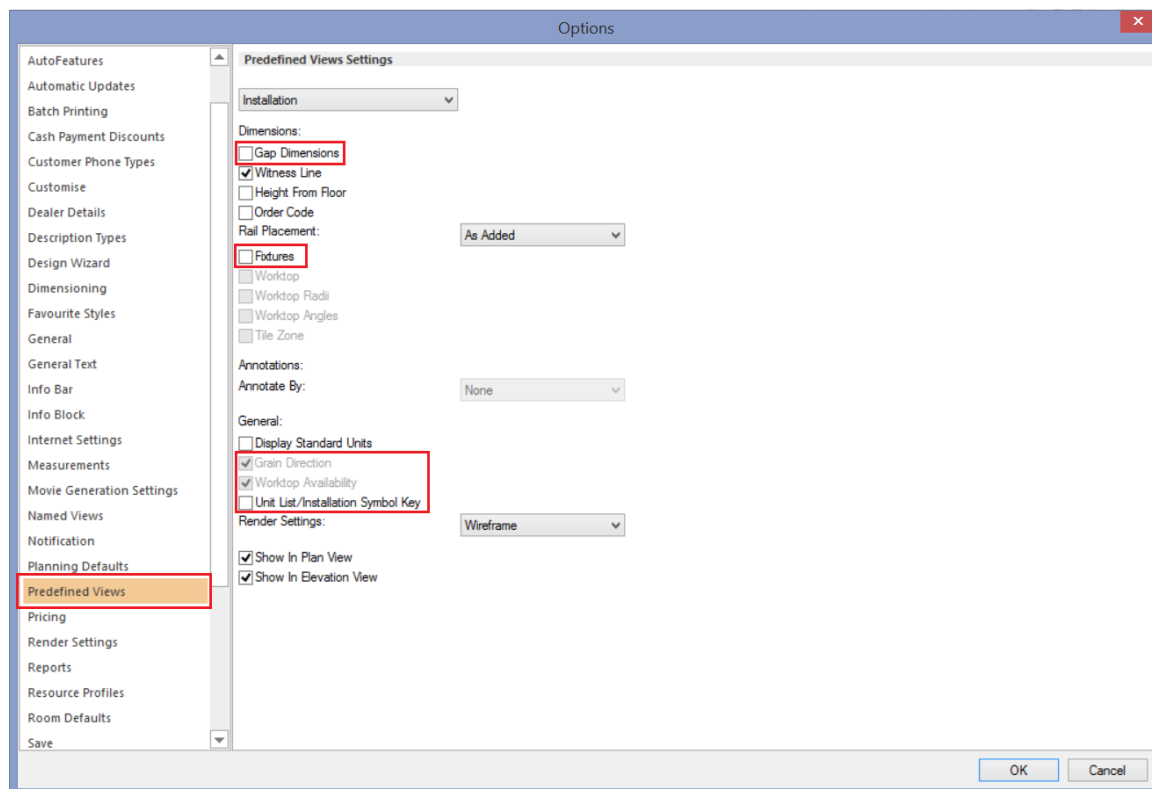


## Fusion to remove duplicate vertical installation dimensions - Further Enhancements (v6.3)

This requirement builds further upon the 'Automatic Removal of Duplicate Installation Dimension Rails' solution originally developed in version 6.1, with the optimisation/removal of dimension rails now also taking place when the following preference is in use:

*[fnRoom]*

*HideOrderCodeHeightFromFloorForVerticalDimsInElevationView = "1"*

## Annotation/Dimension Font Size Relative to View Scale (v6.3)

This change affects the drawing of annotation text, dimension text, named wall annotation text (and its circle size), making the font size operate relative to the view scale. Previously, the font remained exactly the same size, regardless of the scale used or the zoom state.

*Example: Zoomed in View Using Scale-To-Fit*

| *Fixed Font Size (Preference Off)* | *Scaled Font Size (Preference On)* |
|---|---|
|  |  |
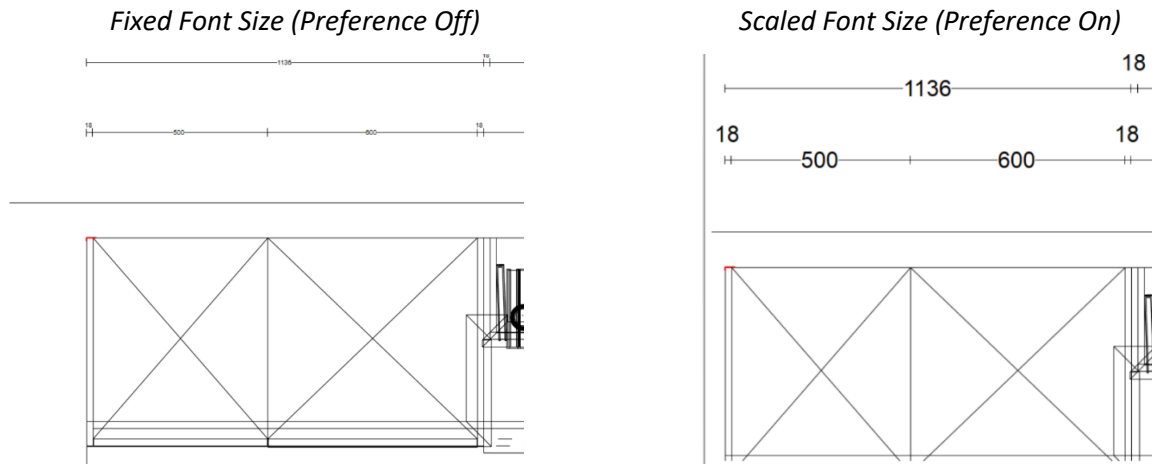
This functionality is controlled by a hidden preference, as follows, with the default being for the new behaviour to apply.

*[Customise]*

*ScaleAnnotationDimensionFonts = "1"*

# Annotation

## New Numeric Annotation Mechanism (v6.0)

Previous versions of 2020 Fusion allowed various numeric annotation sorting methods to be applied across different views. For many users the functionality was confusing, as this made it possible to display different numbers against the same design item, depending upon the type of view and the settings applied to it (e.g. layer selections).

Now, consistent indexing of design items is guaranteed across all views, following a change which makes the Annotation Index sorting method, defined in the Item List view, the driving force behind all numeric annotation displayed in the plan and elevation views.

As before, the default annotation type can be defined in the 'Annotation' section of Fusion's 'Options':
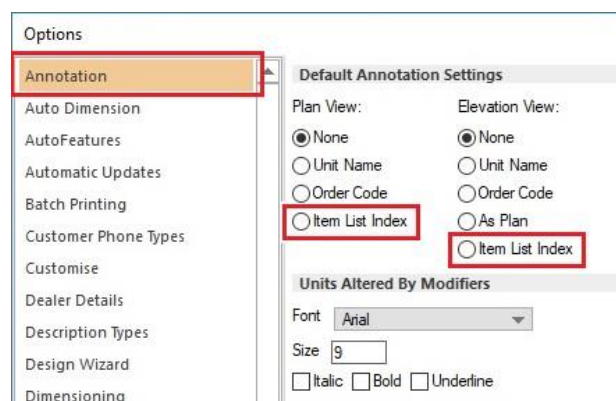
But, as the above illustration indicates, 'Numeric' is no longer an available option in Version 6. Therefore, in order to apply numeric annotation to a Plan or Elevation view by default, the user must choose 'Item List Index'.

The default 'Annotation Index Sorting' (numeric) method can then be defined in the 'View Settings' section of Fusion's 'Options', under the 'Item List Defaults' heading:
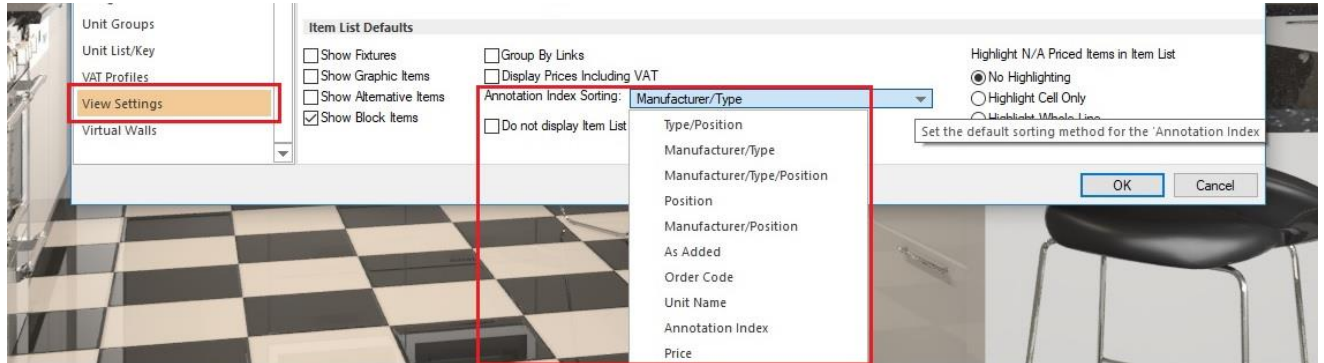


On a per design basis, if the user wishes to apply numeric annotation, then they would choose the 'Item List Index' option, from the drop-down menu:
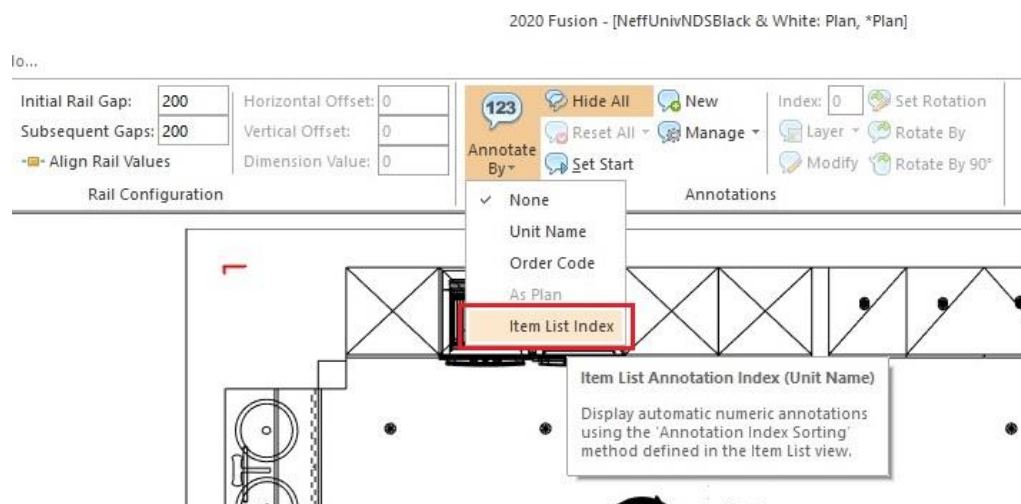


Should the user wish to change the annotation index sorting method from the default, this can then be modified in the 'Annotation Index Sorting' drop-down, found under 'Item List' in the 'View' tab:
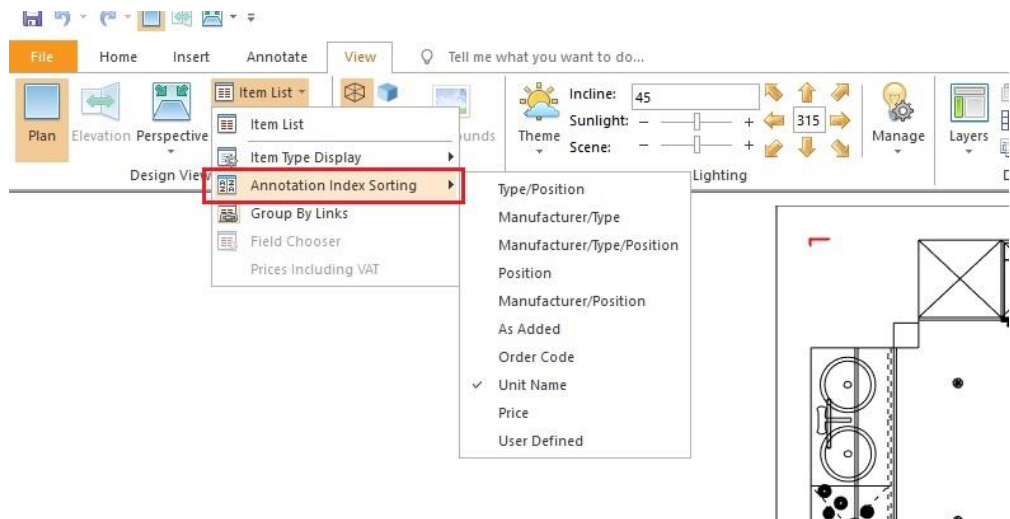
*Design Conversion*

Designs converted from Version 5 and earlier that previously used 'Numeric' automatic annotation will automatically map to the use of 'Item List Index' and the annotation sorting method previously used will also be applied to the Item List view settings.

## Enhancements to Manual Annotation in Named Views (v6.2)

Previously, in 2020 Fusion, it has only been possible to create a piece of manual annotation for one named view at a time. Moreover, since the introduction of the new named view system in Version 6.0, plan and elevation views now typically have an increased number of automatically generated named views and, in addition, designers are now more inclined to create additional named views of their own. Users were therefore finding it increasingly repetitive adding (or copy and pasting) the same pieces of manual annotation from one named view to another.

Version 6.2 provides a solution to this time-consuming problem, with an extension to the manual annotation dialog, which allows a designer to decide which named views a new (or existing) piece of manual annotation should be added to. This is done simply by checking the required named views to which the annotation should be added, listed in the new 'Shown In' section.
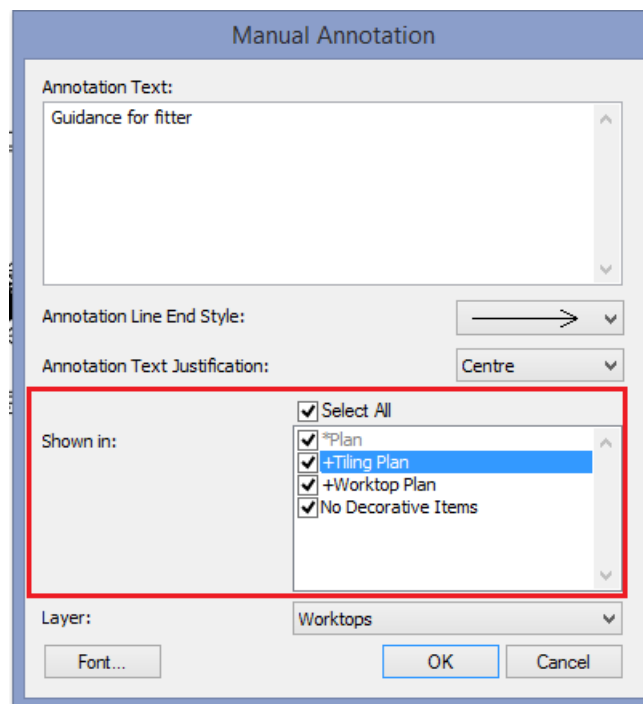


Note: In plan view, all available plan named views are listed in the 'shown in' section. In elevation view, only those elevation named views relevant to the currently displayed wall(s) will be displayed.

At the point of addition, the annotation will be placed at the same point in each of the selected views; however, if it is then subsequently repositioned in one of the individual views, it will only be moved in the specified view itself and not in any others.

It will still be possible to edit manual annotation added across multiple named views (e.g. text, font size/style, arrowhead type etc.) and, provided the same named views remain selected (i.e. checked), any changes made will be applied across all those indicated.

In addition to the above, it is now possible to attribute a piece of manual annotation to a specific design layer at the point of addition; previously this was only possible after the annotation had been added, via the 'Associate With Layer' control in the 'Annotate ribbon.
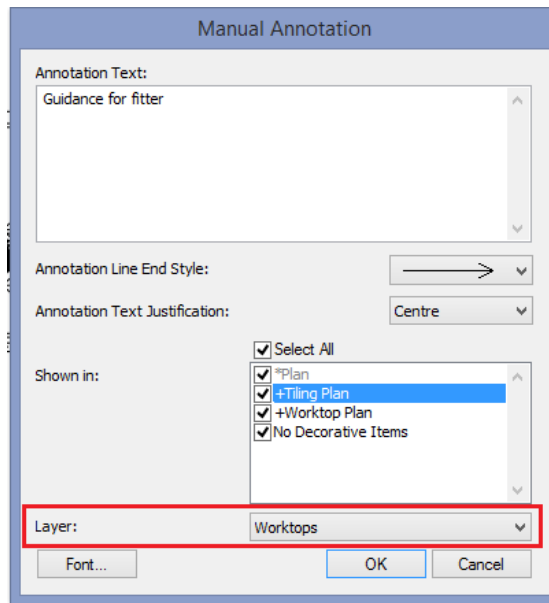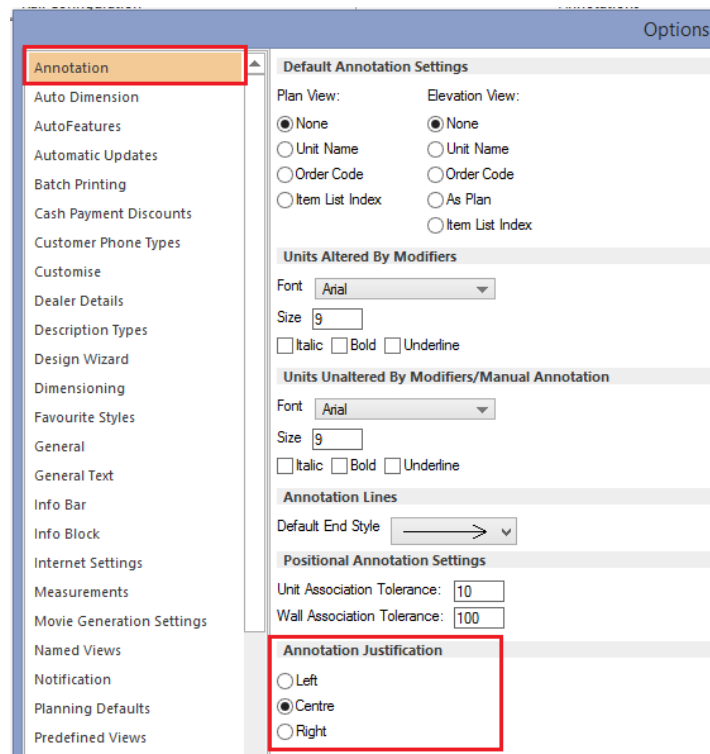


## Manual Annotation Text Justification (v6.2)

It is now possible to define the text justification of manually added annotation at the point of addition, with the user being able to choose from left, right or centre justified from a drop-down control.
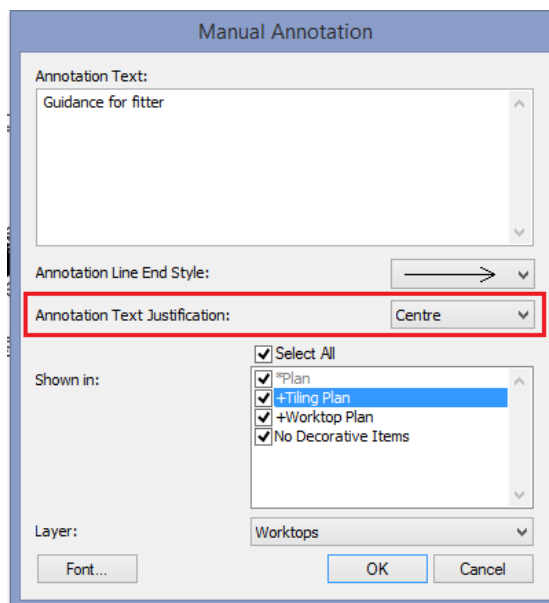
The default justification state for manual annotation can now be defined in the 'Annotation' section of 2020 Fusion's 'Options'; previously, this was only possible via a hidden preference:



Also, as part of this enhancement, the start point of an annotation arrow will always be anchored to the centre of the annotation text area, regardless of the actual text justification. In addition, any part of the annotation arrow line that is within the annotation text area will not be drawn, in order to provide a cleaner effect.
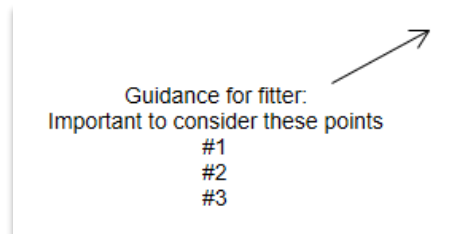


## Option for Numeric Annotation to be Driven by Position Number (v6.5)

Previous editions of 2020 Fusion Version 6 only allowed numeric annotation to be based upon the 'annotation index' sorting method. However, a requirement was presented by some customers to use the 'item list position number' instead. This is now achievable via a hidden preference entry (added directly to the PPPrefs.ini file) as follows:

[Customise]
"AnnotateWithPositionNumber " = "0" or "1"

A value of "0" (the default option if the preference was not defined) will mean that the existing annotation index sorting method will be used'; a value of "1" will mean that the item list position number is used for annotating items in all views.

## Annotation Index: Option for 'Group By Links' to List Items as Successive Integers (v6.5)

2020 Fusion's 'Group By Links' functionality allows design items to be grouped together (and numerically annotated) under a single 'parent item'. For example, a parent item might have an annotation number of "1", and it might possess linked items with annotation numbers of "1.1", "1.2", "1.3", etc. each of which would be listed directly under the parent item in the Item List view.

Some users expressed a desire to still group linked items together based upon their relationship with a parent item, but – when doing so – for them to be indexed using consecutive integers – e.g. "1" (for the parent) "2", "3" "4", etc (for its children). This is now achievable via a hidden preference entry (added directly to the PPPrefs.ini file) as follows:

[Customise]
"ConsecutiveNumbersInAnnotationIndex " = "0" or "1"

A value of "0" (the default option if the preference was not defined) will mean that the existing group by links indexing method will be used (i.e. "1.1", "1.2", "1.3", etc.); a value of "1" will mean that the consecutive integer method will be used for annotating items in all views.

## Design Creation

### Items Tab: Ability to Modify Options/Fields for Multiple Selections (v6.0)

2020 Fusion provides the user with the ability to adjust various settings of a selected design item via the Items Tab. However, historically, this functionality was highly restricted if multiple items were selected; specifically, it was only possible to collectively adjust the wall type of multiple walls, the settings of a selected lights, the items' style options and the layers assigned to them.

In Version 6, designers can now simultaneously adjust many more attributes of multiple selections, with the following now being possible:

- Attributes Panel: Reporting Category, Settings, Handing (Left/Right)

- Price Panel: Non-Priced

- Dimensions Panel: Length, Depth, Height, Dimension Category

- Position Panel: X Position, Y Position, Z Position

- Orientation Panel: X Orientation, Y Orientation, Z Orientation
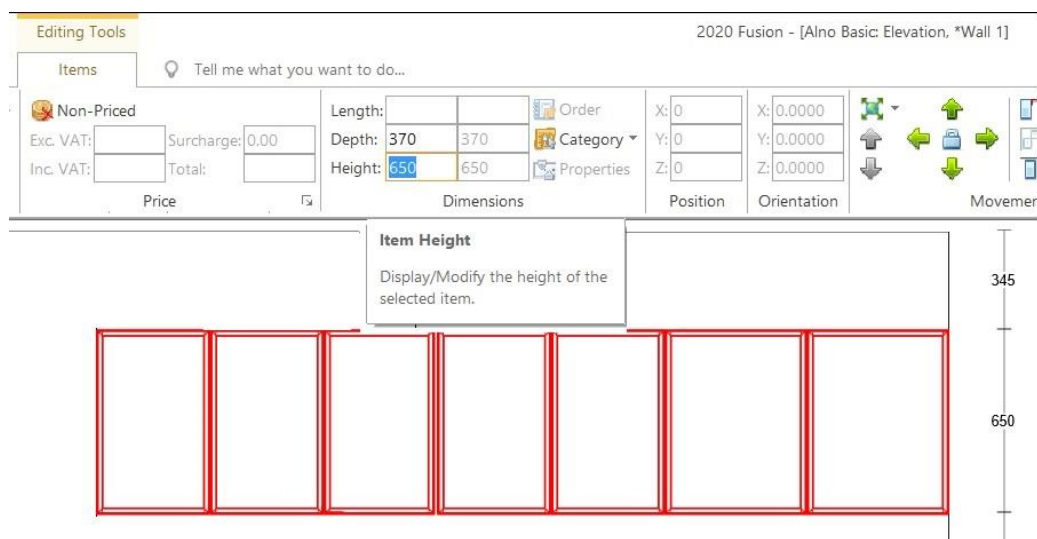
Consistent with Microsoft interface standards, specific rules will be applied when the selections have differing properties; for example, when items do not share common values, a blank field will be shown. However, once entered, the new value will be applied to all selected items and will be shown in the user interface.

This enhanced functionality represents a major improvement in terms of usability and will eliminate the unnecessary repetition previously experienced when applying the same change to several items.

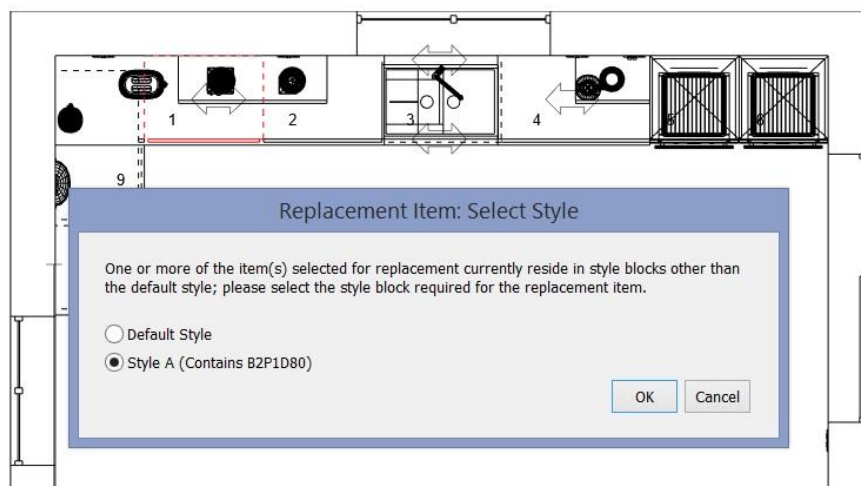## Style Options When Replacing Items Occupying an Additional Style Block (v6.0)

In 2020 Fusion, it is possible to independently change the style options of a given item so that they are different to that of the default style block. Doing so results in the creation of additional style blocks – i.e. Style Block A, Style Block B, Style Block C, etc.

In previous versions of the application, if the item concerned was subsequently replaced, the replacement item was automatically assigned to the default style block, without informing the user. As such, this had the potential to result in incorrect designs, quotations, or orders.

In Version 6, user accessible preferences allow the designer to choose whether to continue to use the existing behaviour (i.e. to automatically apply the default style settings), to always use the style block of the replaced item(s), or to prompt the user when such a situation presents itself.
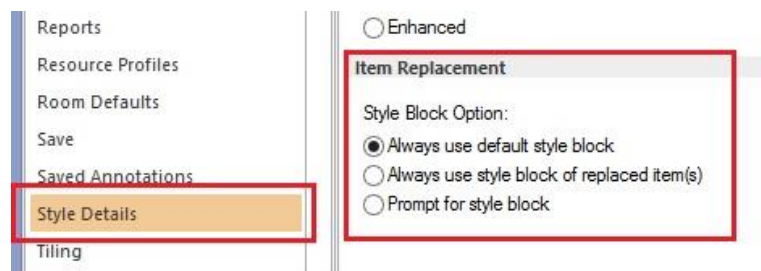


If the option to prompt is chosen, then the user will be presented with the following dialog and will be offered the relevant options based upon the selection(s) and replacements made.



## Warning Mechanism for AutoFeature Items in Additional Style Blocks (v6.1)

Similar to the above, it is also possible to independently change the style options of a given autofeature item so that they are different to that of the default style block. Previously, when re-running autofeatures, edit worktops, edit graphic fixtures, or edit flyover shelves, this fact would not be recognised and, as such,

autofeature items would be reverted to using the default style block without notifying the user in any way. This also had the potential to result in incorrect designs, quotations, or orders.

From Version 6.1 onwards – when re-running autofeatures, the user will be informed via a notification symbol/message on the autofeatures dialog itself, with further details provided via a tooltip when the mouse is placed over the notification message:
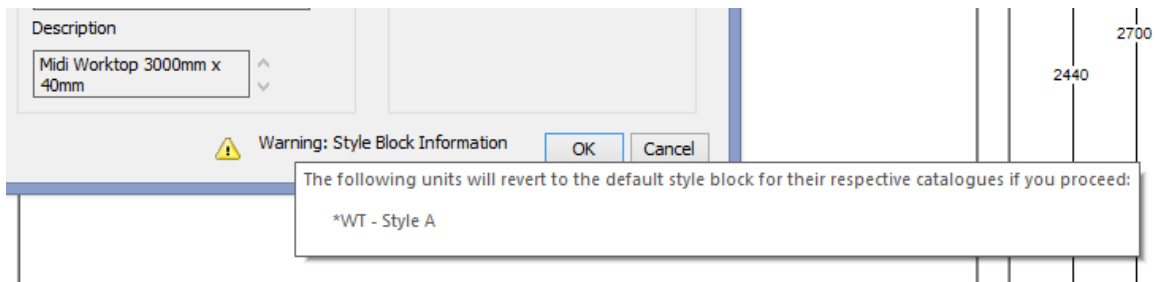


When re-running edit worktops, edit graphic fixtures, or edit flyover shelves, the user will be presented with a dialog warning them of this fact:
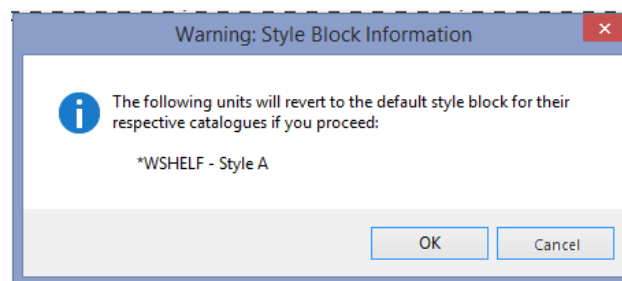


The same dialog can be configured to also appear for autofeatures, via the following hidden PPPrefs.ini preference:

[Customise]

ShowStyleBlockWarningDialog = "1"


## Launch Floor & Ceiling Covering From Any Active Graphical View (v6.0)

In previous versions of 2020 Fusion, it was necessary for the designer to be in the perspective view in order to launch the floor and ceiling covering tools. Effective from Version 6, this can now also be achieved from the plan or elevation view.
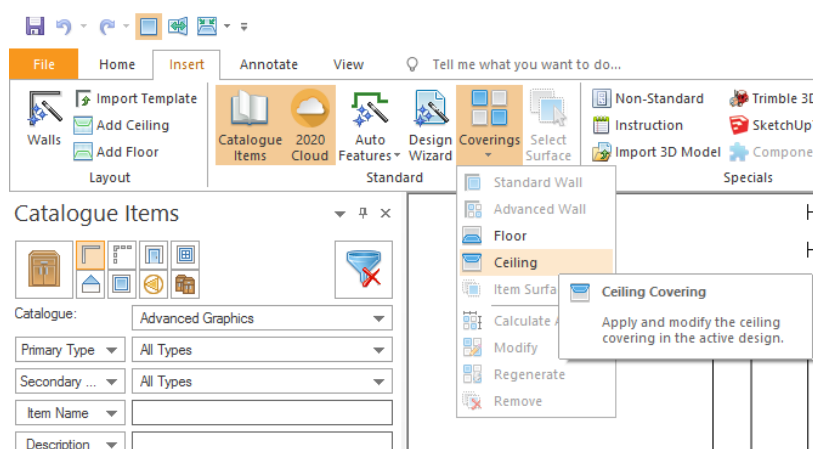
## Support for Trimble SketchUp 2018 (v6.1)

In line with Trimble's release of SketchUp 2018, 2020 Fusion now supports the import of models created using this latest edition.

In addition, 2020 Fusion's 'Export to SketchUp' has been upgraded to export to this latest edition.

## Trimble 3D Warehouse Browser Enhancements (v6.1)

Designers can expect an improved user experience when launching the Trimble 3D Warehouse browser, which is now resizable, can be minimised and maximised and also supports the use of the enter and return keys when searching for products.
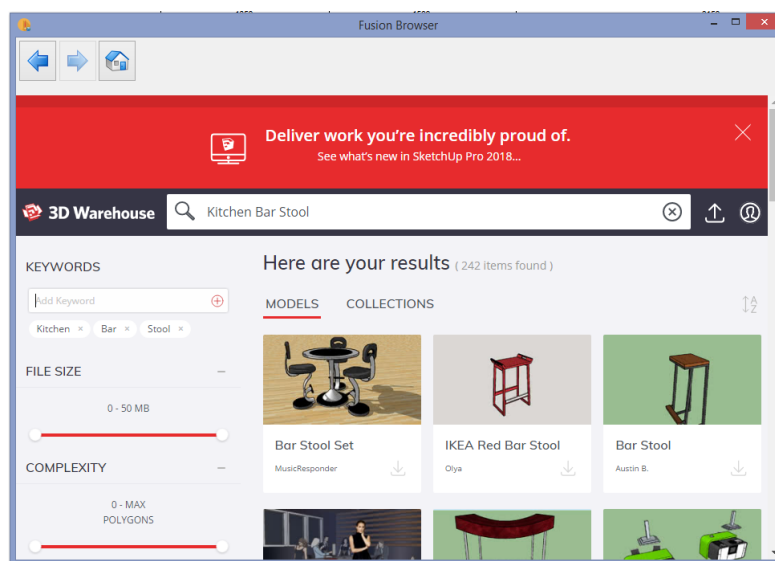


## Ceiling Fixtures (Including Skylights and Roof Lanterns) (v6.2)

Many customers have requested the ability to add skylights and roof lanterns to 2020 Fusion designs. Version 6.2 now offers the designer the ability to add not only these, but also a range of other 'ceiling fixtures' to a flat ceiling and for the application to then apply appropriate cut-outs, as well as display sunlight and backgrounds, as necessary. This is consistent with the existing behaviour for doors and windows.

To add a ceiling fixture to a design, the user must first choose a new 'selector' in the 'Catalogue Items' palette:
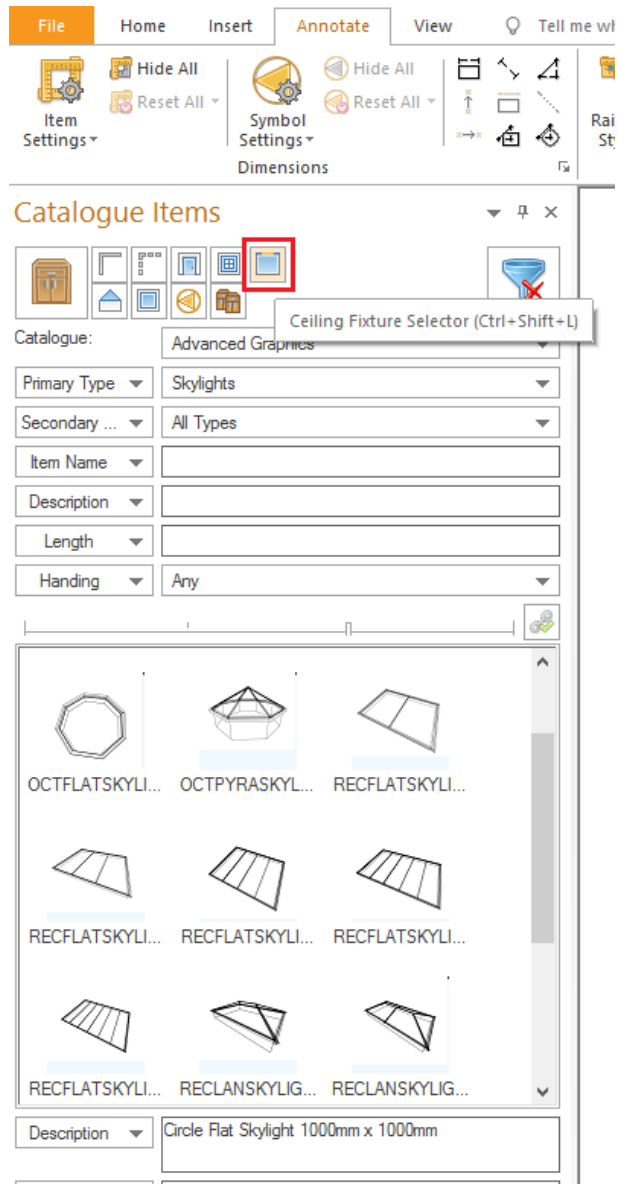
For UK customers, a number of new ceiling fixture items have been added to the Advanced Graphics catalogue in support of this feature. Adding ceiling fixtures to a design works in exactly the same way as for any other design item – it is possible to do so either via drag and drop, by clicking on the add button, or by pressing enter on the keyboard. Moreover, ceiling fixtures can be added in any of the three graphical views of 2020 Fusion – plan, elevation, or perspective.

Subject to content configuration, it may also possible to make further customisations to the ceiling fixtures. For example:

- Modifying the 'height' of a ceiling fixture can determine the depth of the ceiling recess:
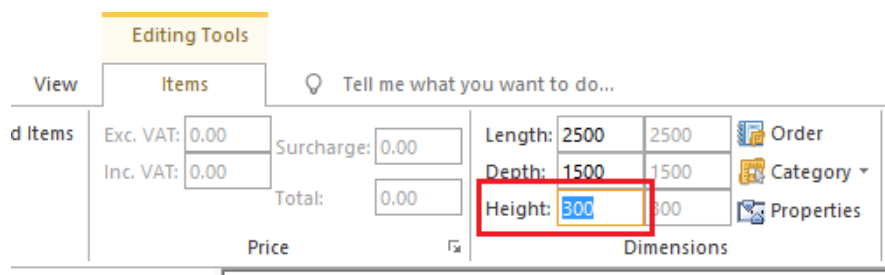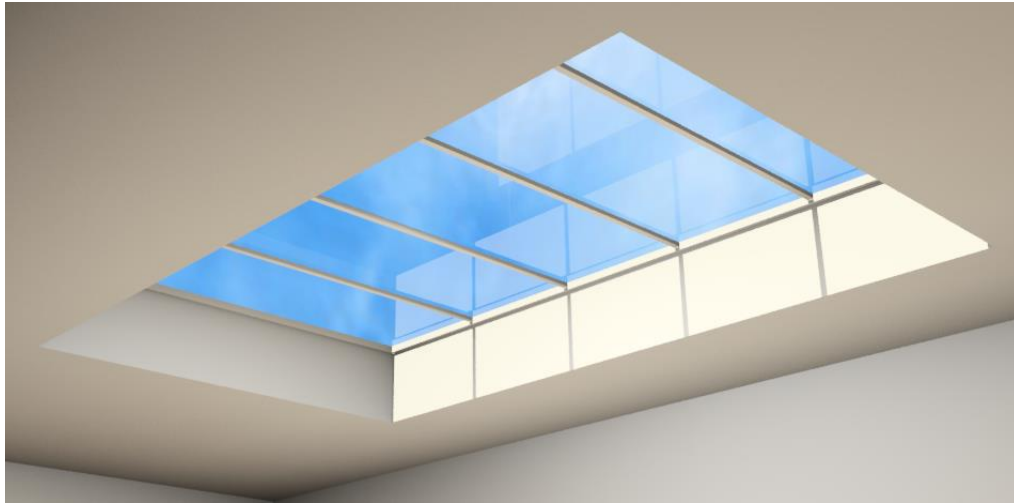
- Some ceiling fixtures may also contain elements that can be configured via the 'Edit Properties' dialog – in this case, the thickness of the mullions separating the skylight panes:
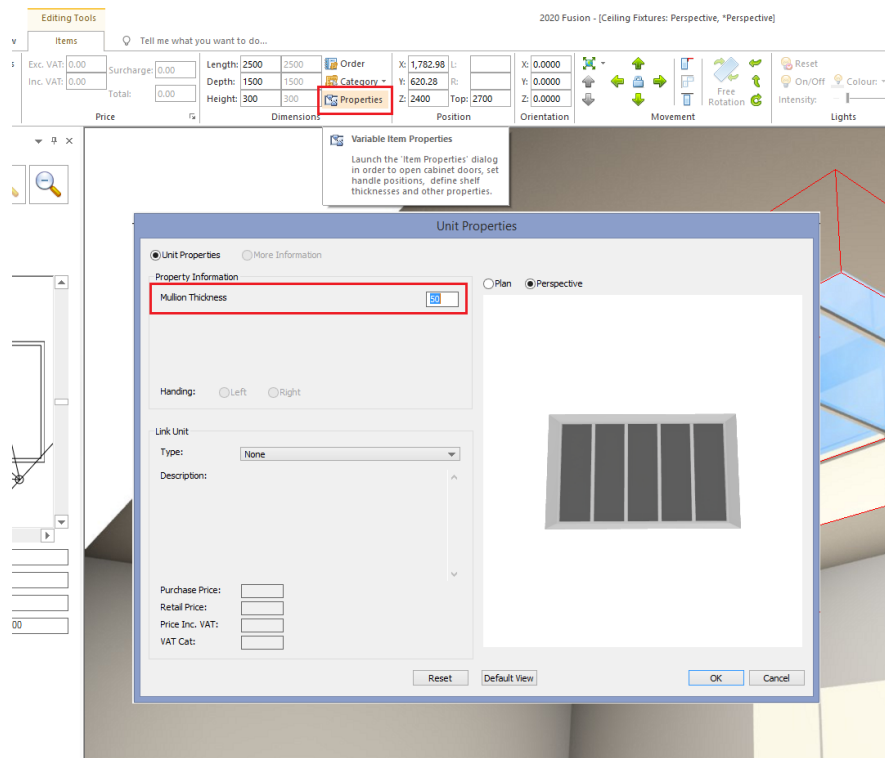


Please note that this new functionality relates solely to the addition of fixtures to flat ceilings. Designers wishing to add fixtures to sloped ceilings (e.g. Velux windows) should continue to follow the existing methods for these (i.e. add them from the 'windows' selector).

## Retention of Autofeature Selections (v6.2)

2020 Fusion allows a designer to place a variety of autofeatures in a design (pelmet, cornice, plinth, worktop, etc.). Each autofeature can be selected and applied from any of the installed manufacturer catalogues and each one has a wide range of configuration options. In previous versions of the application, the need to apply these options every time autofeatures was re-run was unnecessarily time-consuming and could even lead to errors.

From Version 6.2 onwards, 2020 Fusion will now retain the selections previously made in the autofeatures dialog on a per design basis – even across multiple planning sessions. However, should a user wish to revert to the default options, then this can be achieved via a new 'reset' button which has been added to the dialog.
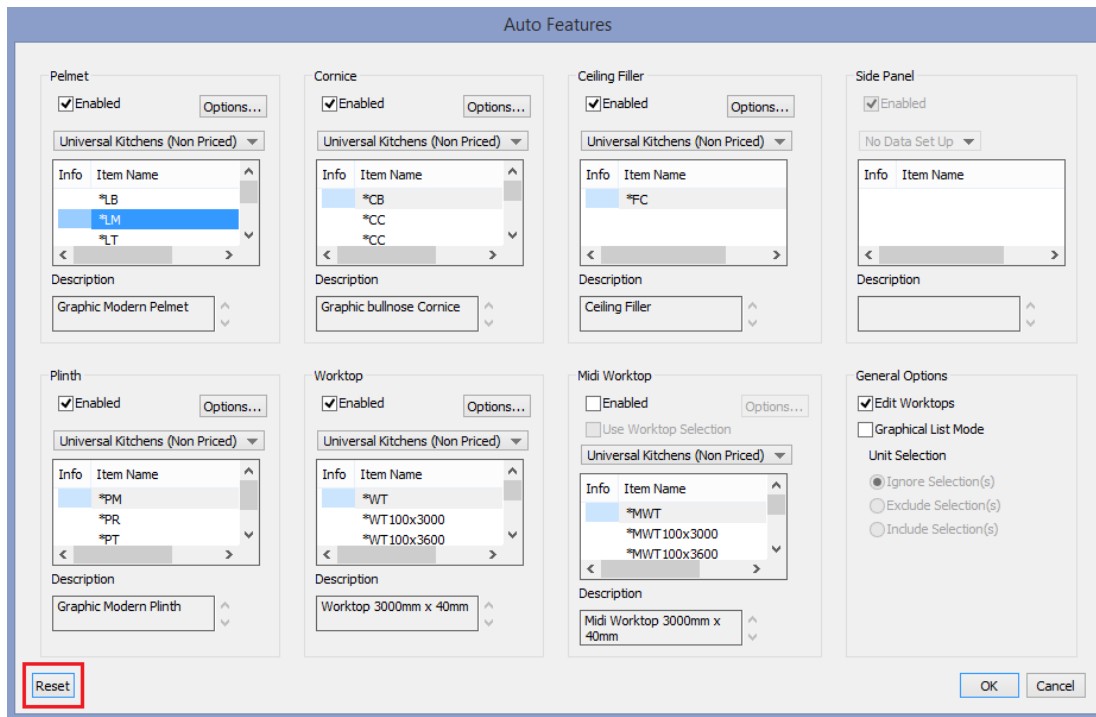


## Addition of 'Top Height off Floor' Criterion to Catalogue Items Palette & Addition of 'Top Height off Floor', 'Distance Left' and 'Distance Right' Fields to Items Ribbon (v6.2)

2020 Fusion's Catalogue Items palette already possesses a 'Height From Floor' criterion, which allows a user to indicate the vertical position at which the bottom of a design item is added. Version 6.2 sees the addition of a new criterion entitled 'Top Height off Floor' which now gives a designer the ability to set the upper height of a design item at the point of addition:
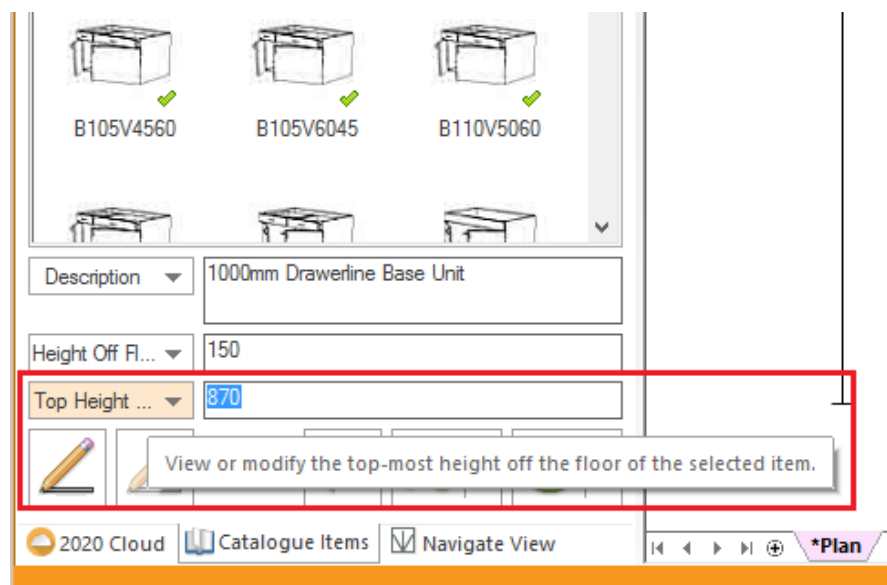
Similarly, a corresponding field ('Top:') has been added to 'Position' panel of the 'Items' ribbon, allowing designers to define the upper height for an item (or items) that has already been added to the design. In addition, 'Distance Left' ('L:') and 'Distance Right' ('R:') fields have also been introduced to this section, allowing a user to adjust these values for an item (or items) that has already been added to the design.
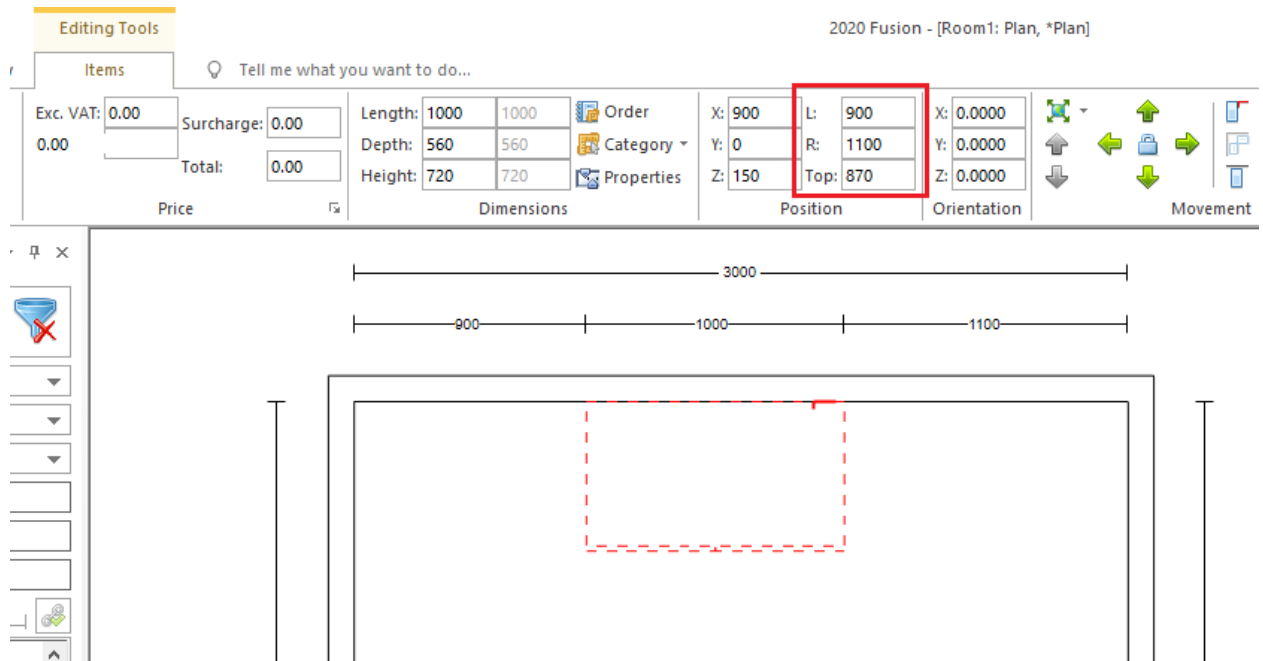


These fields can be set manually by the user, but will also update in 'real time' when a selected item is repositioned in a view using drag and drop.


## Mouse Wheel Zoom & Drag: Ability to Function in Specific Modes (v6.2)

The new mouse-wheel zoom and drag functionality has been further extended to also operate whilst a user is working in the following modes in plan and elevation views:

Single line tool, Poly line tool, Edit Worktops/Edit Graphic Fixtures/Edit Flyover Shelves (while dragging a cut or shape tool), Measurement tool, or when adding any manual annotations or dimensions:
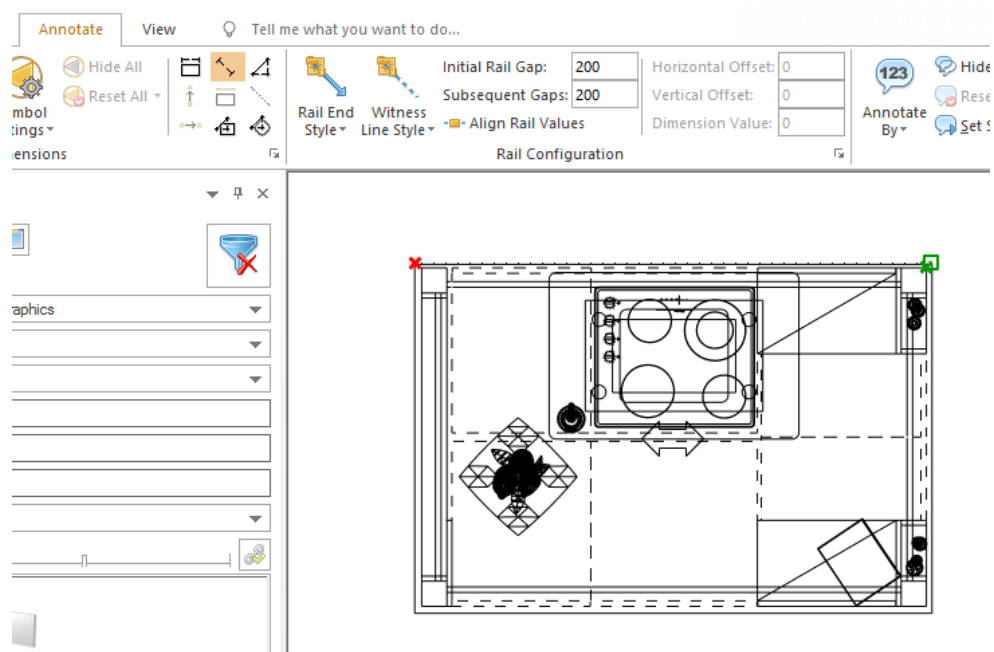
Dragging via the depressing of the mouse wheel button is not necessary whilst in these modes, as the view will reposition automatically when the user moves the mouse pointer to the edges (top, bottom, left, right) of the design area.

## Room Validation: Option To Validate/Update (Basic) & Trade Prices Only (v6.3)

2020 Fusion's room validation wizard runs a number of checks against a design in comparison to the latest installed catalogues; one such check relates to the prices of design items. Ordinarily, the check is run against (basic), trade and retail prices, but some customers require the option for the check to only be conducted against (basic and) trade prices only.

Such functionality will not be standard and will only be available via the addition of a hidden preference to 2020 Fusion's PPPrefs.ini file – firstly, to offer the option described above, secondly to expose a checkbox allowing the user to display trade prices:

*[Customise]*

*RoomValidationTrade = "0" or "1", "0" or "1"*

- Entry 1: 'Show Update Trade Only' checkboxes:

  0 – Don't show (Default), 1 – Show

- Entry 2: 'Show Trade Prices' checkbox:

  0 – Don't show (Default); 1 – Show



## 'Sticky' Size/Position/State of Trimble 3D Warehouse Browser Window (v6.4)

When using the Trimble 3D Warehouse dialog, 2020 Fusion will now store the browser window's size and relative position on the screen(s), allowing the designer to take full advantage of their screen estate. This means that, when selected on successive occasions, it will be restored in the same position and with the same size. As before This enhancement will be especially useful to designers who use multiple monitors and might wish to keep the Trimble 3D Warehouse dialog on its own dedicated screen.
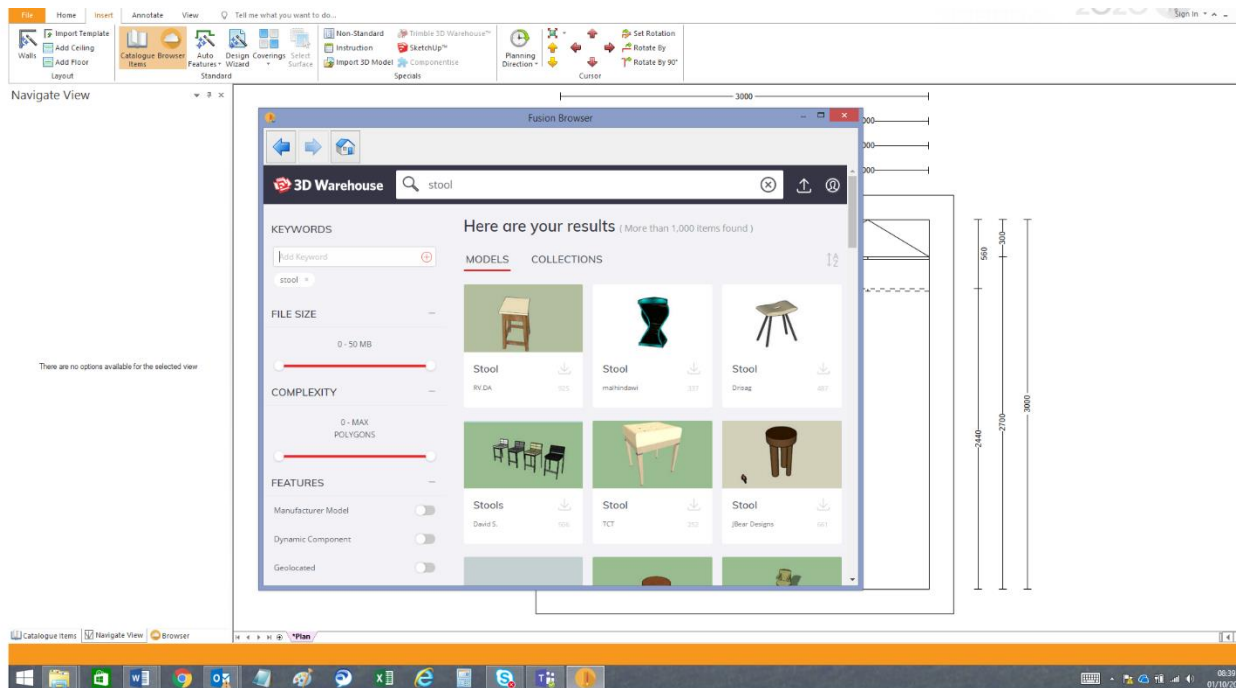
In addition, the Fusion Browser can now be closed by pressing the ESC key, as well as the X button s. Also, when viewing the Trimble 3D Warehouse dialog, pressing the F5 function key will now refresh the view.

# User Interface/User Experience

## Zoom and Drag Control via Mouse Wheel (v6.0)



In addition to 2020 Fusion's existing controls, another means of zooming in or out has been added to the application. Moving the mouse wheel forwards in either plan or elevation views will cause the view to zoom in based upon the mouse-pointer position; moving the mouse wheel backwards will cause the view to zoom out until the view returns to '100%'. In perspective, moving the mouse wheel forwards or backwards will make the view angle to widen or narrow, thus simulating the sense of zooming in or out.

Whilst in a zoomed in state in any of the three view types, it is also possible to drag to a new position within the view simply by holding down the mouse wheel and moving in any direction.
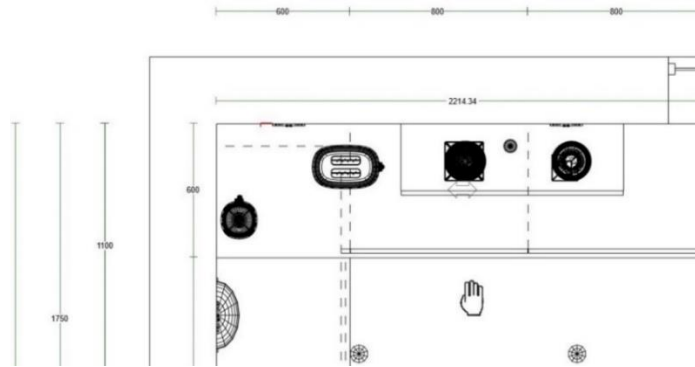
*Note: the existing ability to position the cursor by single-clicking the mouse wheel still remains and is unaffected by this new functionality.*

Owing to the possibility of inadvertently zooming in on a rendered perspective view, a user accessible preference has been added to give the user the option to disable to the mouse-wheel zoom functionality in perspective. This preference can be found in the 'Perspective Defaults' section of the of the 'View Settings' options.
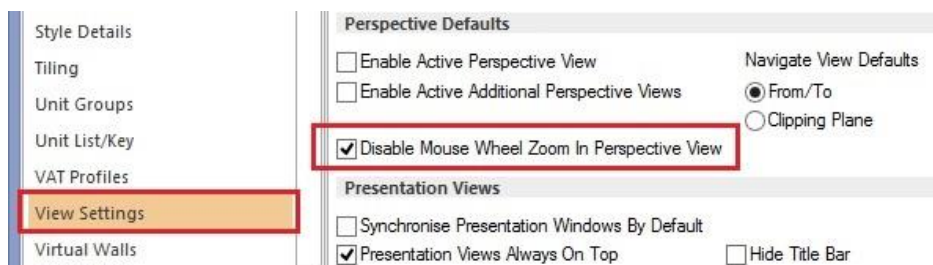


## Repositioning/Consolidation of the 2020 Cloud Ribbon Icons (v6.0)

Two simple updates to the 2020 Fusion user interface have been made in respect of the 2020 Cloud:

Firstly, the button which opens and closes the 2020 Cloud add palette has been raised to the top level of the Insert ribbon:
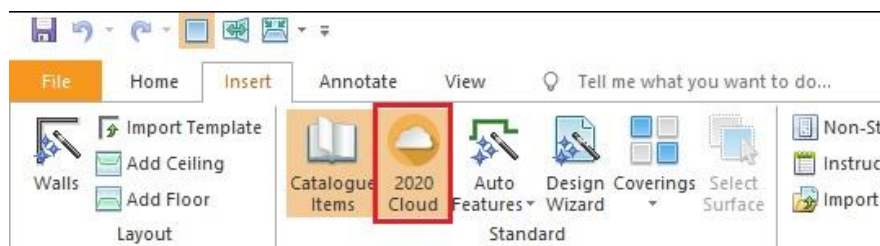


Secondly, there is no longer a dedicated option to specifically update design items from the 2020 Cloud – this functionality is now fully integrated with that of the standard 'Update Design From Catalogues…' button, thereby removing the need to run this process separately.
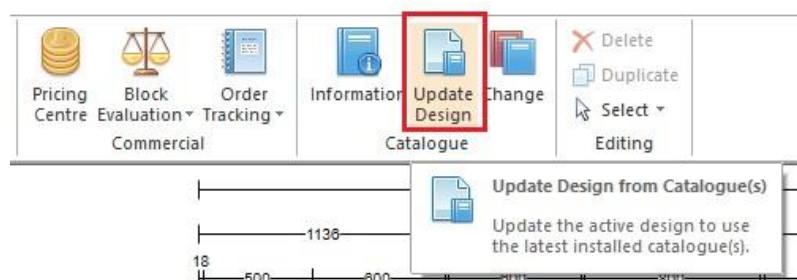
## Preference to Open 'Modify Description' Dialog via Double-Click in Item List (v6.0)

For some users, the current method of editing the description of a selected item by double-clicking on the corresponding text in the bottom right-hand corner of the screen is considered to be inconvenient in terms of usability, because this often means the need to move the mouse across a large part of screen estate.

In Version 6, to help such users, a hidden preference has been added (to Fusion's PPPrefs.ini file) allowing a 'double-click' on a single entry in the item list to generate the 'Edit Description' dialog.

[ItemList]

DoubleClickEditDescription = "1"
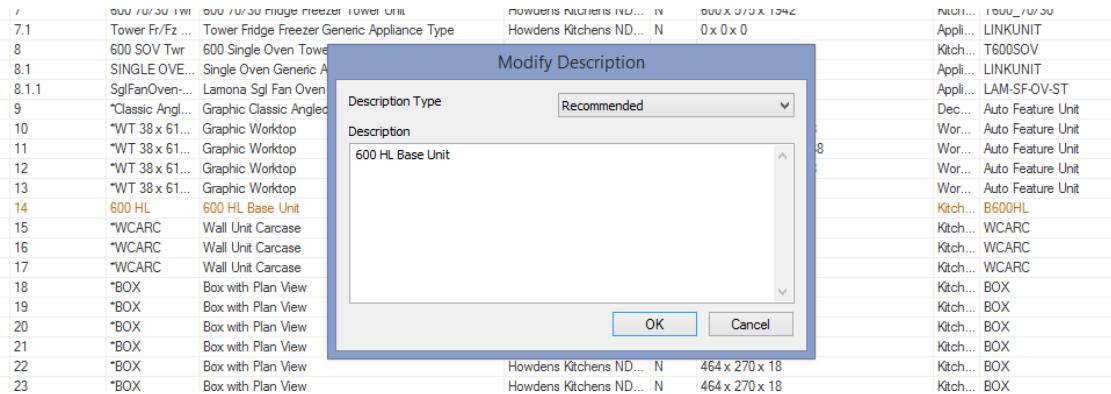


This option was made preference-based, as it was felt that it could not be assumed that all users would want this dialog to appear under these circumstances, as double-clicking on an entry in the item list also serves the purpose of bringing the 'Items' tab to the front, thereby allowing other attributes to be modified.


## Full Access to Change Materials For 2020 Cloud Products (v6.0)

Effective from Version 6, all recognised methods of changing material will be applicable to design items added from the 2020 Cloud. These methods include:

- The "Change Material" menu option on the Items ribbon (under 'Attributes', 'Selected Style').

- The "Change Material" Quick Launch toolbar (QAT) tool.

- The "Change Material" CTRL+U accelerator key.

- The "Change Material" menu on the context menu that appears when right-clicking with the mouse button on a design.
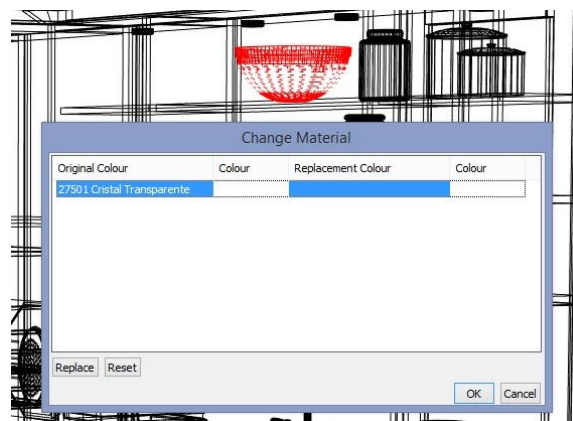
## Tracker-Based Snapping Indicators (v6.0)

When a user is creating a design in 2020 Fusion, there are certain functions that rely on the use of 'hotspots' – i.e. specific areas or design items to which other items can precisely snap (attach) to. In previous versions, these snapping points were invisible and so it was not always clear to a designer when or why snapping was taking place.

In Version 6, visual indicators of snapping points have been added to aid usability when working in the following areas:

- Manual Dimensioning Tools: 'From To', 'Right Angle', 'Vertical Multipoint', 'Horizontal Multipoint', 'Item Centre', 'Installation Symbol Centre', 'Dimension Selected Line'.
- Add Palette Tools: 'Single Add Tool', 'Poly Add Tool'.
- The 'Free Hand' Tool within: 'Edit Worktops', 'Edit Graphic Fixture' 'Edit Flyover Shelves.
- The Freehand Rectangle and Multipoint Covering Zone tools within: 'Advanced Tiling' and 'Surface Covering'.
- The 'Measurement Tool'

There are three types of snapping indicator:

- 'Selectable' hotspot indicators:
    - o Identifies all potentially selectable hotspots on nearby items within the current snapping tolerance.
    - o Represented by a green cross.
- 'Target' hotspot indicators:
    - o Indicates the nearest hotspot that will be snapped to if the user clicks at the current mouse position.
    - o Represented by a green square.
- 'Selected' hotspot indicators:
    - o If hotspots have been selected, and the tools tracker is still active, then this will identify those selected hotspots:
    - o Represented by a red cross.
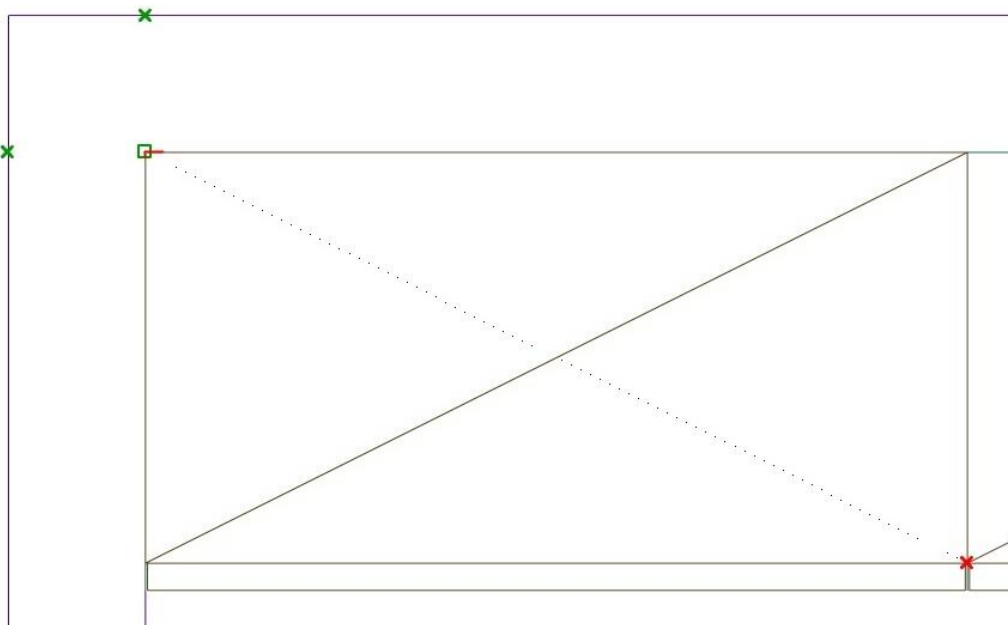
## Microsoft Office 2016 User Interface (v6.0)

The application has been updated in line with Microsoft Office 2016, to reflect its revised ribbon interface and its new colour schemes:
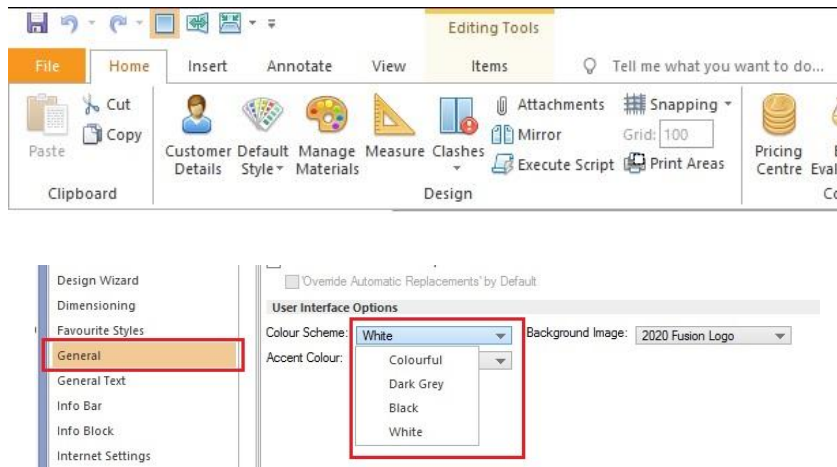
In addition, the 2020 Cloud login area has been relocated to the top right-hand corner of the application in order to function consistently with the corresponding functionality in Microsoft Office:
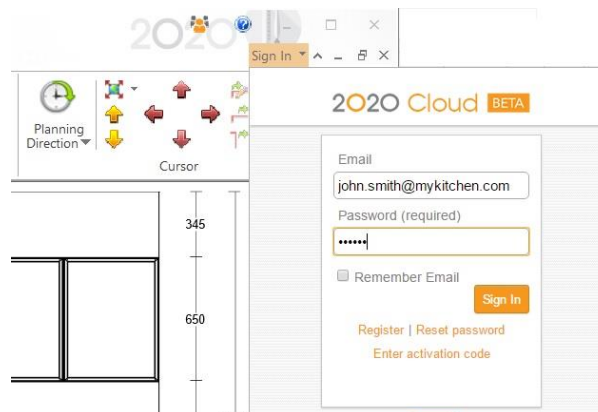
## Advanced Covering: Improved Snapping (Hotspot) Recognition (v6.2)

When using the freehand rectangle or multi-point tools within 'Advanced Covering', hotspot snapping indicators will recognise the corner points of tile zones that have been already added.
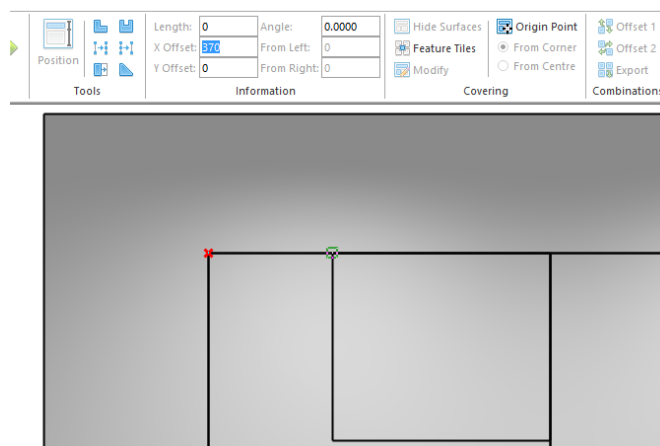
In addition, a new hidden preference has been added which will determine whether other design items displayed in the view should also be considered for hotspot indication, based upon their proximity to the wall. The preference, for which the default value is 50mm, is as follows:

 [Tiling]

HotspotDisplayTolerance = "Distance"

Items beyond the specified distance from the wall will not generate hotspot indicators whilst in the covering view.

Finally, whilst in an elevation view, any relevant tile zones will have hotspot indicators associated with them for the purposes of activities such as measuring and manual dimensioning.


### Tracker-Based Snapping Indicators for Imported Design Layout Template (v6.2)

The tracker-based 'snapping indicator' functionality, originally added to Version 6.0, has been further extended to also indicate hotspots when adding fixtures on top of an imported design layout template.

Note: these hotspot indicators will only be displayed when walls, doors, windows and/or niches are being added to the room, using the single add or poly add tools.
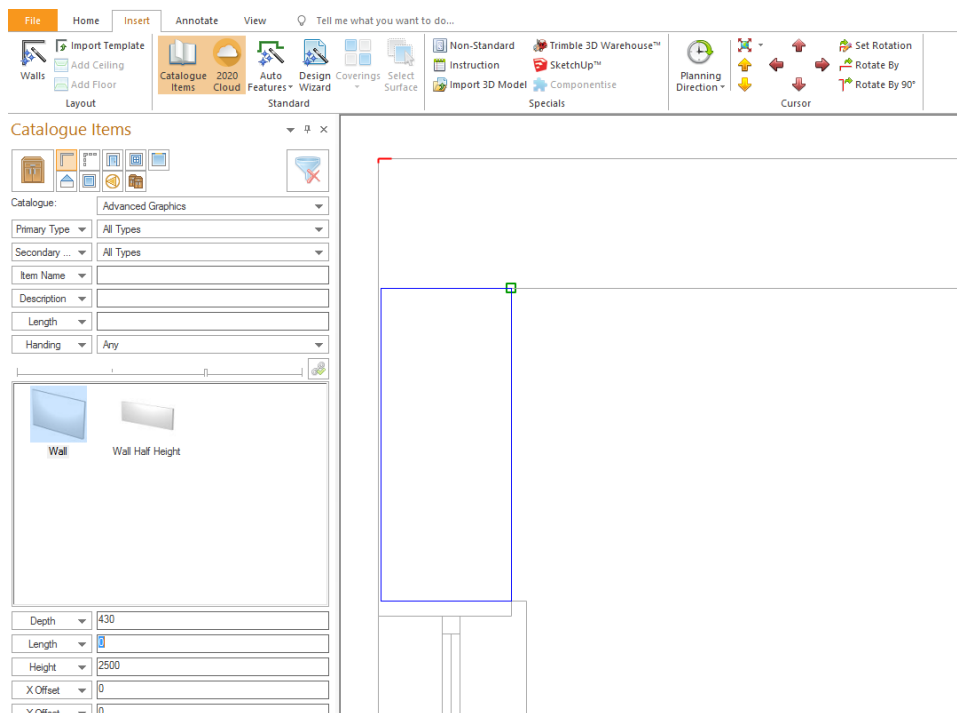


### Reset Palette(s) Settings (v6.3)

Some users take time and effort to define the exact settings and positioning of palettes within 2020 Fusion. At the end of any Fusion session (i.e. when the application is closed), this information is saved either within Fusion's preferences (for add palette settings) or in the registry (for palette(s) positioning).

During a 2020 Fusion session, it is possible that a user may unintentionally change a palette's position or an add palette setting and not know how to restore it to its previous state. In Version 6.3, the addition of a 'Reset' button in the 'General' section of Fusion's options now allows them to achieve this.
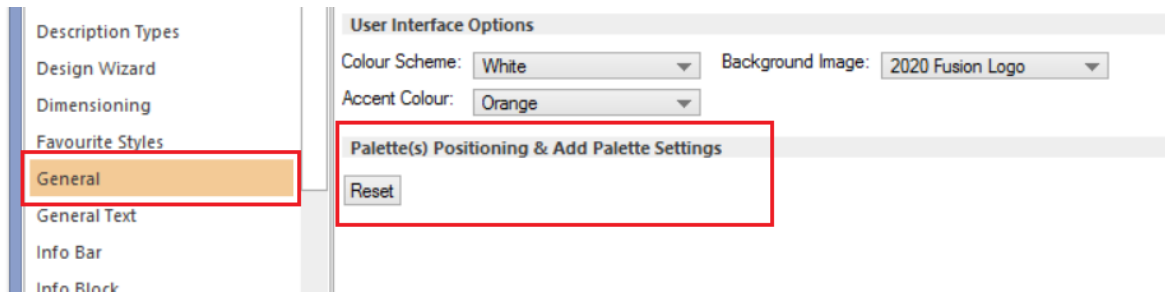
Note: upon pressing 'Reset' the user must then confirm the changes and then exit the 'Options' dialog by pressing 'OK'. Once done, the settings saved at the end of the previous Fusion session will be restored.

## 'Select Catalogue' Dialog: Find Required Catalogue By Typing Initial Characters (v6.3)

Many users have a large number of catalogues installed in 2020 Fusion. With such a long list, it can be difficult to quickly and easily find the catalogue that is required. New functionality now makes it possible for a user to jump directly to the required catalogue in the 'Select Catalogue' dialog by simply typing the first one or two characters on the keyboard. If multiple catalogues share the same first character, repeatedly typing it will allow the user to 'cycle' through all those in the list starting with the same letter.

This will apply in all cases where the 'Select Catalogue' dialog is displayed, i.e. when:

- Creating a new room in Standalone mode.

- Adding a catalogue to an existing room in Standalone mode.

- Adding a catalogue to an existing room in Connect mode.

- When prompted for a replacement catalogue

- When opening a catalogue in Catalogue Editor

- For the script method to choose a catalogue
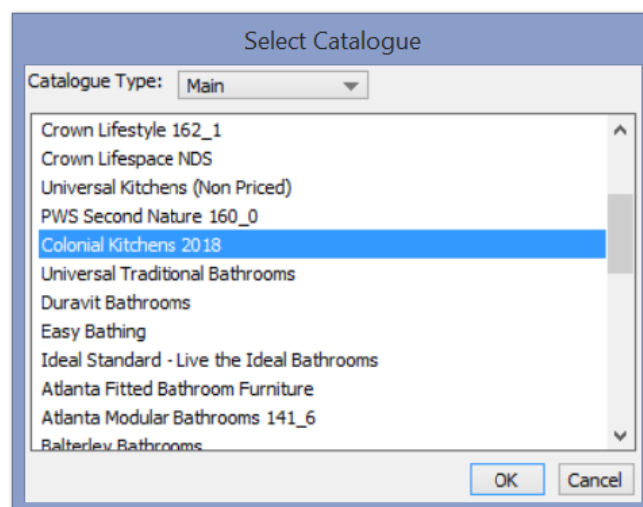
## Zoom and Scroll for Wall, Floor and Ceiling Covering Modes (v6.3)

As a further extension to the mouse wheel zoom functionality added to version 6.0, designers are now also able to zoom in/out and scroll when applying or editing coverings in the Standard /Advanced Wall, Floor and Ceiling modes.
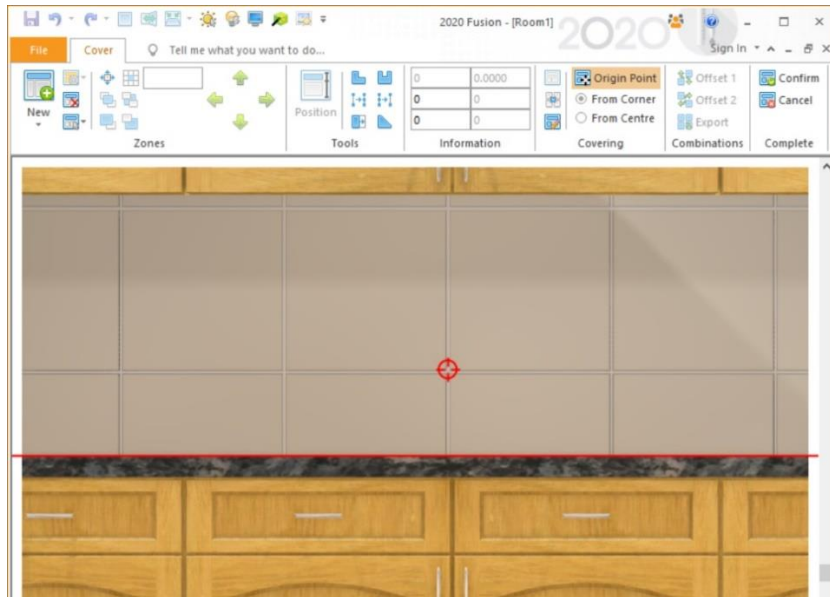


## Application of Modifiers: Improved UI/UX (v6.3)

When applying a modifier to a selected item, the resulting dialog has now been improved not only in terms of its presentation and layout, but also in order to reduce the number of clicks required to actually apply the modifier itself.
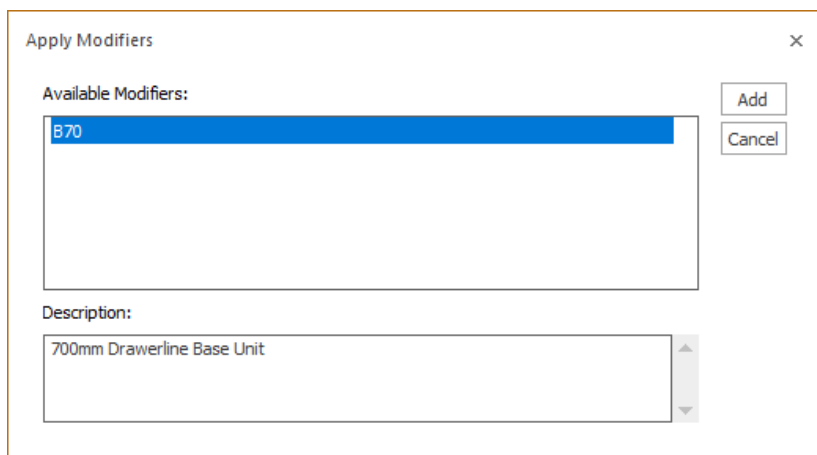


## 'Catalogue Information' Dialog: Ability to Select & Apply Specific Actions to Multiple Catalogues (v6.4)

The Catalogue Information dialog provides a list of all the catalogues installed into a design and allows the designer to perform certain actions upon them. In the past, only one catalogue could be chosen at a time, which meant that the same action often had to be repeated several times over.

In Version 6.4 onwards, the user can perform the following commands with more than one catalogue selected:

- Link them to the main catalogue in the design.

- Unlink from to the main catalogue in the design.

- Move them up the list of catalogues (provided that the selections are adjacent).

- Move them down the list of catalogues (provided that the selections are adjacent).

- Remove them from the current design.
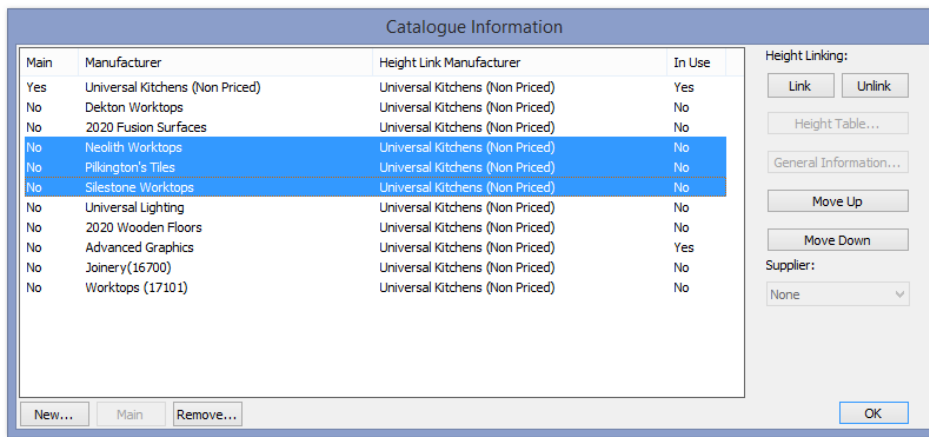


## Add Link to the 2020 Knowledge Center (v6.4)

In addition to its own dedicated Help File system and the link to the 2020 User Community, 2020 Fusion now has a link to another learning resource – the '2020 Knowledge Center'.
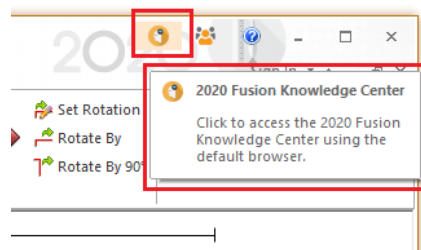


This area contains a series of articles, added weekly, written in response to commonly raised designer questions submitted to our telephone helpline or support email account.

## Mouse Wheel Zoom & Drag Enhancements (v6.4)
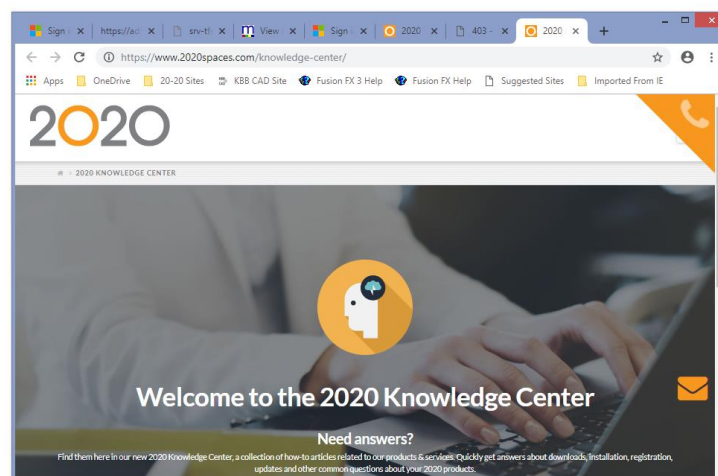
In Version 6.4, 2020 Fusion's mouse wheel zoom functionality has been further optimised to ensure a much smoother user experience across a wide variety of mouse types.

However, for users who continue to experience performance issues with the mouse-wheel zoom, a hidden preference has also been introduced which allows the user to determine (in percentage terms) whether more or fewer turns of the wheel will be needed to zoom in or out.

If the user is experiencing oversensitivity, then a value lower than the default setting of 1.10 is advised; if the experience is too sluggish, then increasing the value will provide more responsiveness.

[Customise]

MouseWheelZoomFactor = "1.10"

This work has also been complemented by improvements in the way in which the application behaves when working in a zoomed in state, for example when dragging or performing an action whilst in a tracker mode. This has been achieved through the addition of more 'increments', which also helps to deliver a smoother experience for the designer.

## Ability to Disable the Mouse Wheel Zoom in Plan/Elevation (v6.4)

Some users have expressed a preference to use only 2020 Fusion's traditional methods of zooming in and out of a design, continuing to use either the zoom option on the 'View' ribbon, or the Ctrl ++/Ctrl +- method on the keyboard. When the mouse wheel zoom functionality was originally introduced, it was possible to disable it for the perspective view, but not for the plan/elevation view.

Now it is also possible to do so for pla/elevation in Version 6.4 onwards, by checking the following preference in the 'View Settings' section of 2020 Fusion's 'Options'. Setting this preference will disable mouse wheel zooming in all parts of Fusion where a Plan or Elevation view is used – not only standard Plan and Elevation room views, but also in Edit Worktops, Edit Coverings (Floor/Ceiling) and when using a tracker.
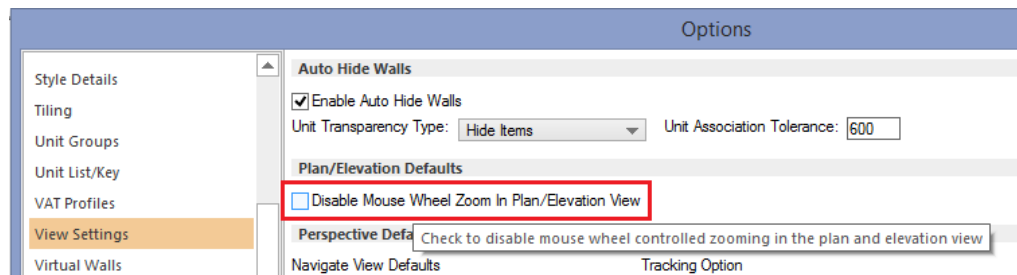


The default behaviour remains for the mouse-wheel zoom functionality to be enabled, unless the above preference is explicitly set.

## Prompt for Missing Catalogue if Used for Change Material and Subsequently Uninstalled (v6.4)

Upon attempting to open a design, 2020 Fusion will validate whether all the necessary catalogues are installed to represent the products added within it. In the past, this validation restricted itself only to a check of actual design items and their source catalogues.

However, some designers will often add a product from one catalogue (for example, a *BOX from Advanced Graphics) and then apply a material from another manufacturer's catalogue to that item. It is therefore important to ensure that any such installed catalogue checks also extend to the use of materials, as well as the use of specific design items.

Version 6.4 of 2020 Fusion now performs such a check and the following dialog will now also appear if a catalogue from which a material had been applied is missing (i.e. if the relevant catalogue has been uninstalled in the meantime).
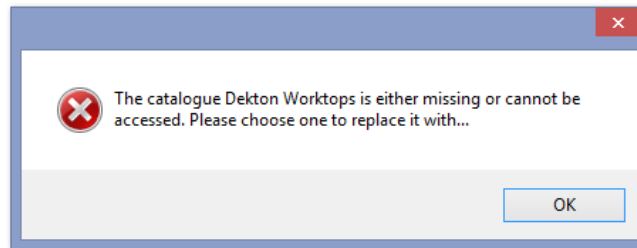


Note: The same consideration will also be applied when converting a design from one version of 2020 Fusion to another – i.e. a catalogue will not be considered superfluous and removed from the design if only a material has been used from that catalogue.

## Ability to Enable/Disable (Toggle) Snapping Indicators (v6.4)

In Version 6.0 of 2020 Fusion, the tracker-based snapping indicator functionality was introduced. Although regarded as beneficial, designers expressed a desire to exercise full control as to when this interface was enabled or not.

In Version 6.4, the designer can now specify if snapping indicators should be displayed by default or not for all new designs by setting a new preference in the 'Planning Defaults' section of 2020 Fusion's 'Options'.
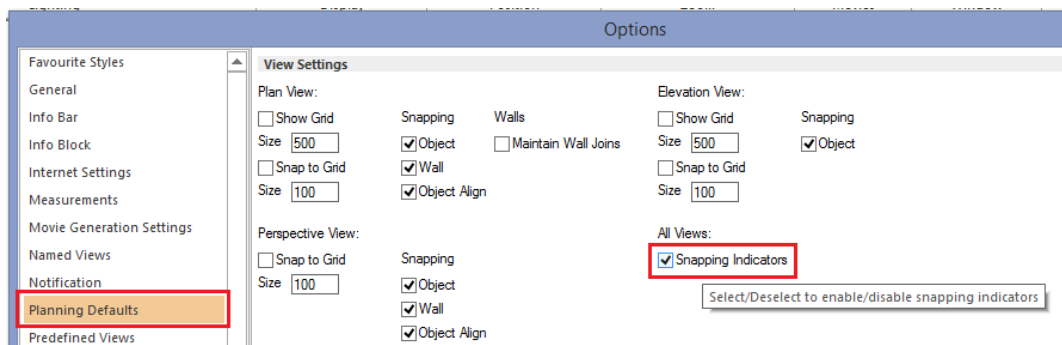


They can also override this setting at any time for individual designs whilst they are in progress by un/checking a new entry under the 'Snapping' menu on the 'Home' ribbon.
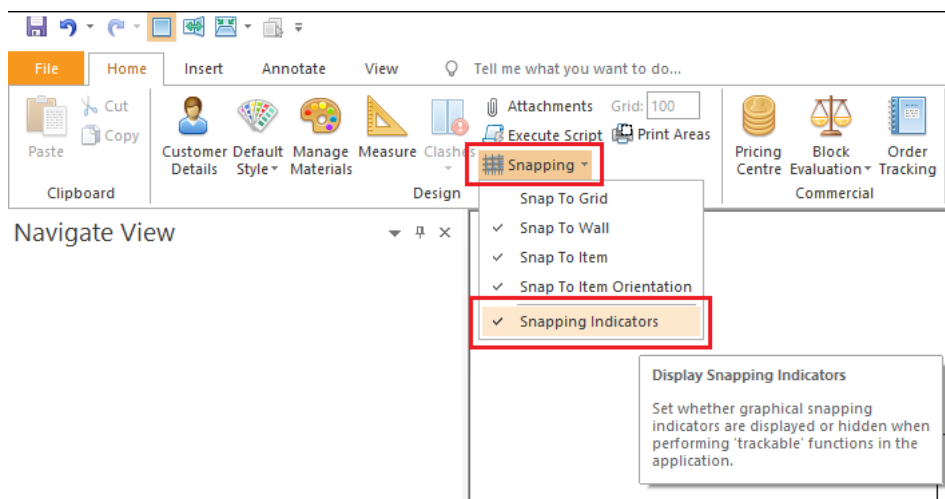
## Increase Width of User-Defined Text Fields in Customer Details Dialog (v6.4)

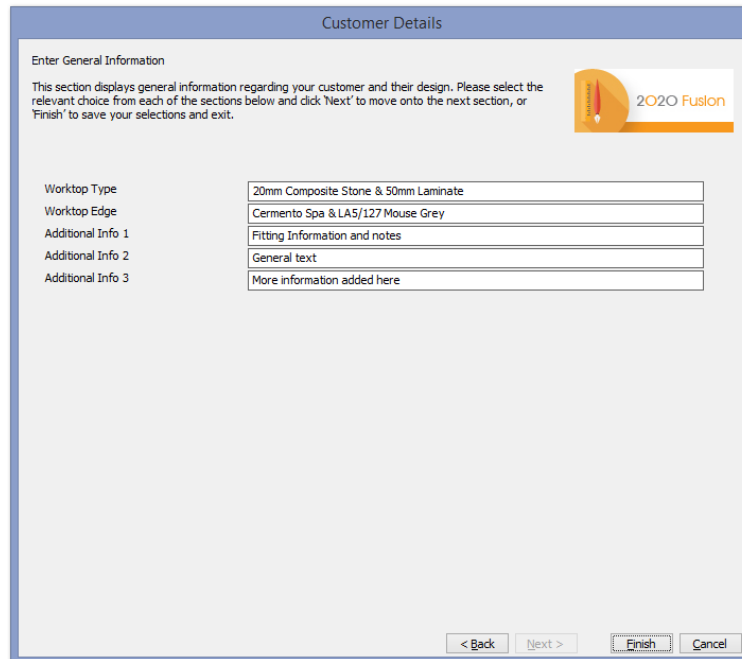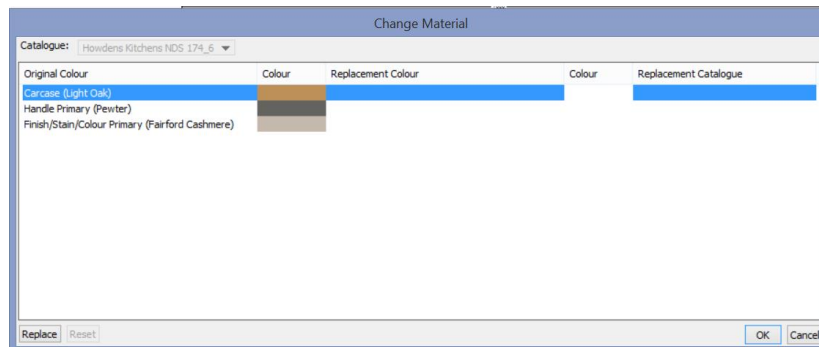The general text fields used within the Customer Details area have been made wider so that they occupy the full width of the dialog:



## Change/Select Material Enhancements (v6.5)

Enhancements have been made to each of the 'Change Material' and 'Select Material' dialogs to aid usability. The Change Material dialog has been made wider overall, which provides more space for the descriptions under each column heading. A new column has also been added, which indicates the name of the 'Replacement Catalogue', from which the replacement material has been applied.



The Select Material dialog and its respective column headings have also been widened; moreover, it also includes a larger preview window - with an option to toggle between a 2D and 3D representation of the selected material. Filtering is now also 'live', meaning that the user will no longer need to tab out of the text box once a search is entered. This makes filtering behaviour consistent with the application's Add Palette.
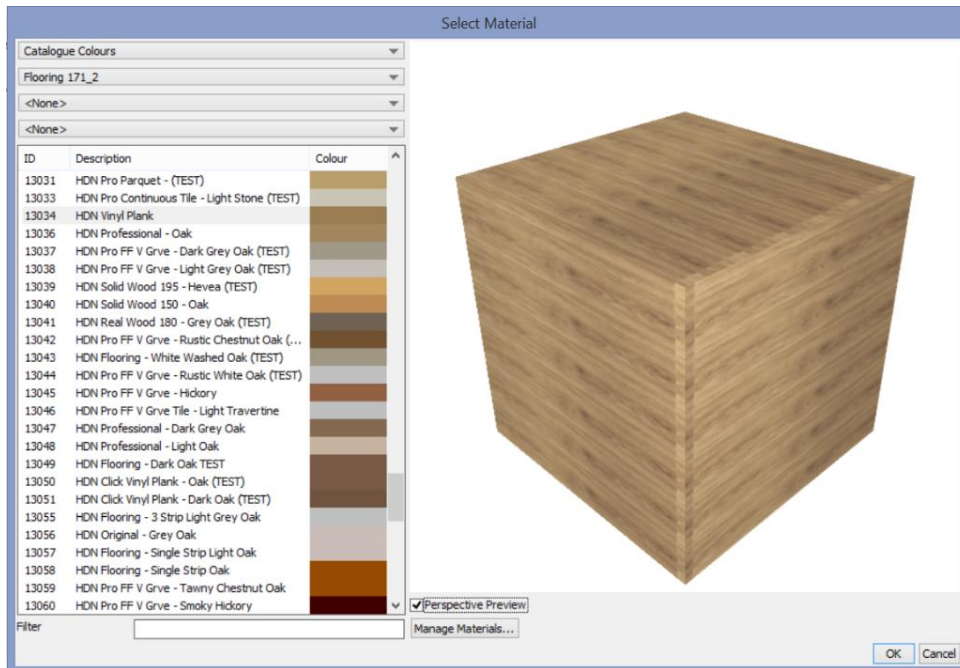
## Option to 'Indicate Front Edge of Worktop' (v6.5)

2020 Fusion has possessed long-standing functionality to be able to show the grain direction of a piece of worktop. Now it is also possible to indicate the 'front edge' as part of the grain direction symbol itself.

In Version 6.5 onwards, a preference is now exposed to the end user in the 'Room Defaults' section of 2020 Fusion's 'Options'.
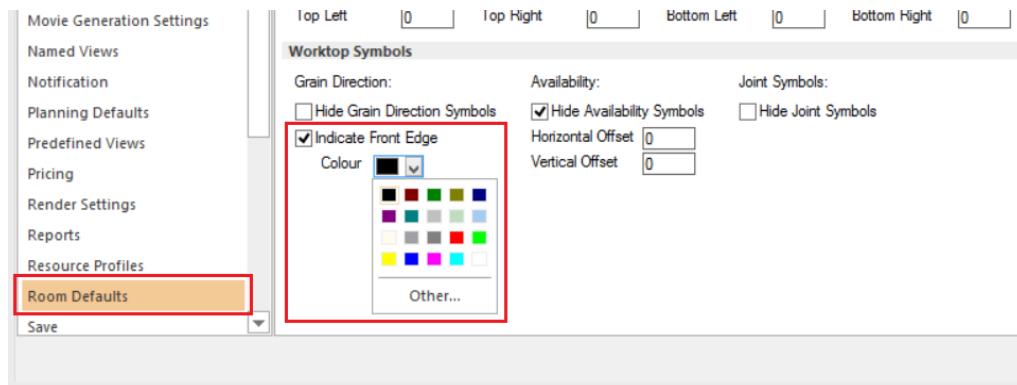


If set, the grain direction indicator changes from a double-headed arrow to a single-headed arrow, with the front edge indicated by the coloured (shaded) side of the arrow itself (the default colour being black).
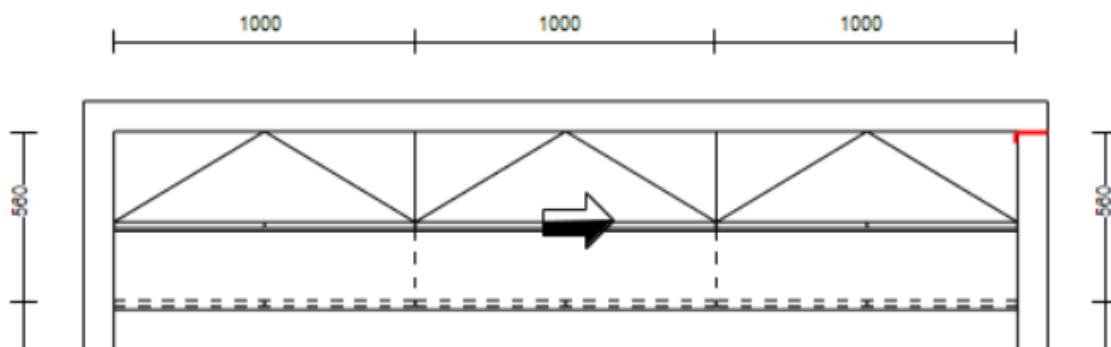
## Automatically Add Missing (File-Based) Catalogues When Copying & Pasting Items Between Designs (v6.5)

2020 Fusion can open multiple designs at the same time. It also supports the ability to copy items from one design and paste them into another. However, in older designs, this would only be possible on the condition that the recipient design was using all catalogues relevant to the pasted items. If this was not the case, then an error message would be generated, asking the user to add the required catalogues to the design first and then try again.

In Version 6.5 onwards, assuming that the required catalogues are all installed on the system, they will now be automatically added to the recipient design as part of the copy and paste process. Once done, the catalogues will also be listed in the Add Palette, Catalogue Information dialog and all other relevant areas of 2020 Fusion.

## Improvements to 'Dashed on Plan' (v6.5)

The underlying mechanism for the display of units in plan view using dashed lines has been improved in order to deliver more consistency and completeness of representation across a range of shapes and sizes. This will minimise instances of items for which some dashes appeared to be 'missing' as a result of them being very narrow or unusually shaped. Behaviour is also consistent between working in a scaled/zoomed view and 'scale-to-fit'.



# Viewing, Lighting & Rendering

## New Rendering Solution (v6.0)

Version 6 sees the introduction of a reinvigorated rendering solution, created with the specific needs of our customers at the forefront of its design, delivering great quality without the prolonged render times of the past.

### *Render Options*

In terms of user interface, the old render gallery control has been completely removed and replaced by six dedicated buttons – one for each new render option, positioned at the top level of the 'View' ribbon.
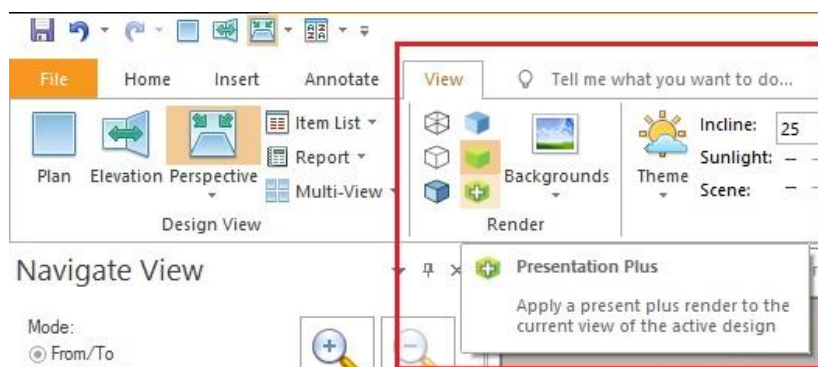
These comprise:

- Four 'planning' level renders (*Wireframe*, *White Fill*, *Colour Fill* and *Draft*) which take next to no time all to generate, supporting our customers' need to work quickly and efficiently during the design phase. These renders are analogous to the ones by the same name in Version 5 and earlier, in that they specifically utilise the power of a computer's graphics card.

- In addition, there are two processor-based renders, used for the generation of higher quality output **in the perspective view only**, either on-screen or on the printed page. The 'Presentation' render (~10 secs) brings an unrivalled level of detail to the live sales environment, whilst the 'Presentation Plus' render offers an even greater degree of quality in the matter of a couple of minutes.

Like any button on the 2020 Fusion ribbon, each render option can be added to the Quick Access Toolbar, making for improved access and efficiency.
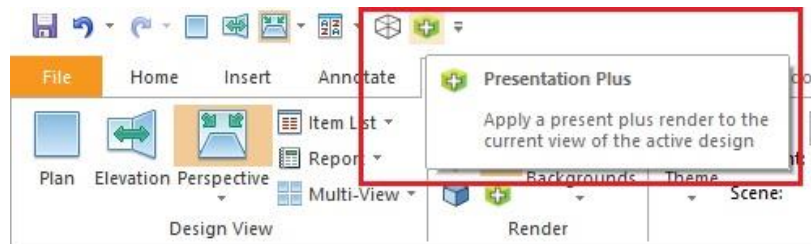


### Design Conversion

As part of the move to the new solution, it should be noted that all renders associated with Version 5 and earlier (including all 'Artistic Effects' renders), as well as any related preferences have been retired. When opening 'old' designs in Version 6, renders will be migrated to their new equivalents, where possible. In the event of this not being possible, the scene will be rendered in wireframe and one of the new renders will need to be reapplied.

### Lighting Themes

The new rendering solution continues to make use of lighting themes, but these are now incorporated directly into the application, as opposed to (previously) being catalogue based. This means that it is now possible to set a default lighting theme via a new user-accessible preference in the 'Render Settings' section of 2020 Fusion's 'Options':
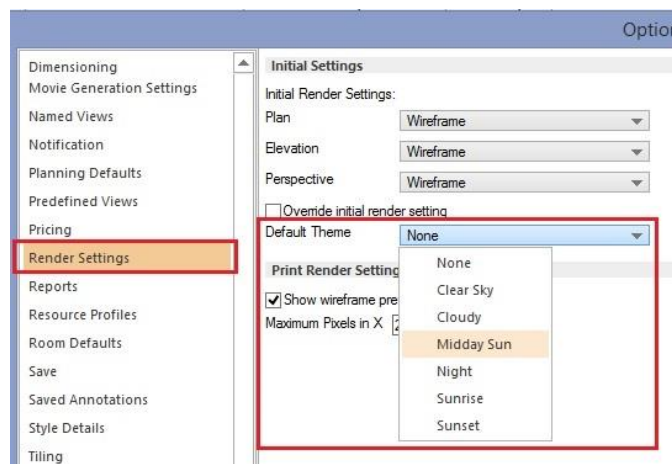


*Note: In Version 6, the 'Default' theme has been retired and, unless a preference has been explicitly set (above), new designs will default to a lighting theme of 'None'. Please refer to the 'Automated Lighting Rig' section for further details of 2020 Fusion's new functionality under these conditions.*

Should a user wish to hide one or more of the lighting themes, this can be achieved via a hidden preference entered into 2020 Fusion's PPPrefs.ini (or PPPrefs_Override.ini) file under the [Customise] section heading. This line can contain multiple values if more than one theme needs to be hidden:

[Customise]

HideLightingTheme = "Theme ID", "Theme ID", etc.

The lighting theme IDs are:

"1" - Clear Sky, "2" - Cloudy, "3" - Midday Sun, "4" - Night, "5" - Sunrise and "6" – Sunset.

*Note: It is not possible to hide the 'None' theme.*

### *Backgrounds*

The use of backgrounds continues to be supported under the new rendering solution, with the following modifications:

- It is no longer possible to apply a background in Plan view.

- The HDR file format will no longer be supported for imported backgrounds.

Also, to complement the release of Version 6, a series of new backgrounds will be added to our catalogues.

### *Retired Related Functionality*

As part of the implementation of the new rendering solution, the following functions have been retired:

- Fusion 3D

- Artistic Effects

- Planning Mode

- VRML Export

### *User-Added Lighting*

The methods of adding and modifying user-added lighting remains unchanged, but the Universal Lighting catalogue has been updated to be fully optimised for use with Version 6; it is therefore recommended that only user-added lights from this catalogue are used in Version 6 designs.

## Background Rendering (v6.0)

In the past, rendering a 2020 Fusion design was highly restrictive in nature as, unless a designer clicked 'Cancel', they were obliged to wait until all design and presentation windows were fully rendered before the application became responsive again.

However, effective from Version 6, the same background processing mechanism previously developed for printing and exporting, now also applies to presentation level rendering (i.e. 'Presentation' and 'Presentation Plus'), thereby taking full advantage of a computer's processing power.

This means that users are now able to undertake a whole range of actions across multiple designs without having to wait for a render to finish first. Moreover, renders can be easily interrupted or changed and they will also be automatically reapplied following any adjustments made to the design.

*Background rendering being applied to a view layout comprising two perspective views:*
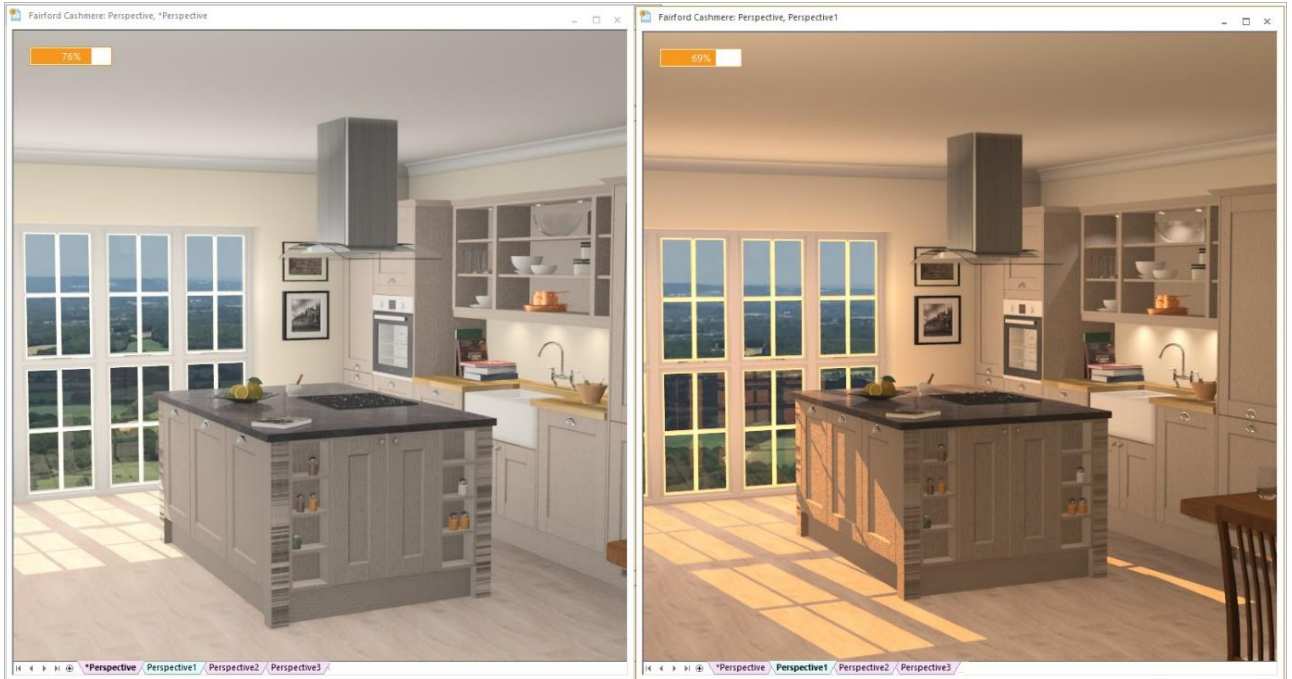


As a result of the increased responsiveness introduced by background rendering, combined with the general speed of the four planning renders, an additional benefit is that there is no longer a need for 2020 Fusion to provide a 'Planning Mode'; as such, this feature has now been retired in version 6 onwards.

## Automated 'Lighting Rig' (v6.0)

In earlier versions of 2020 Fusion, it was incumbent upon the designer to apply a lighting theme and several user-added lights in order to generate a well-illuminated scene. This could take a lot of time and could be particularly frustrating if lighting was not a major consideration for the end client, or if a design just needed to be produced quickly and with minimum effort.

In Version 6, it is now possible to create a well-lit scene without needing to add a single light. In the event that a lighting theme of 'None' is selected or, if a specific theme has been selected, but no windows or doors have yet to be added to the design, then 2020 Fusion will take care of the lighting automatically by applying an artificial 'lighting rig', based upon the overall size of the design.
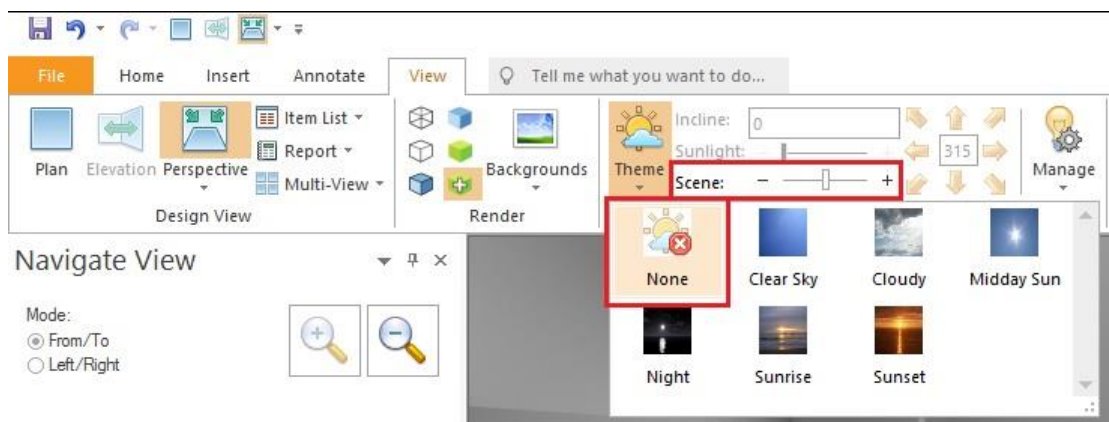


As an artificial source of light, there is no corresponding sunlight effect associated with this theme – therefore the 'Sunlight' slider is ghosted when using this option. The lighting rig itself is controlled by simply increasing or decreasing the brightness on the 'Scene' slider.

*Example of a design illuminated by the lighting rig only*



## Perspective View: Only Show Backgrounds Through Windows/Wall Openings (vvvvvv6.0)

As part of Version 6's revamped rendering solution, changes were made to ensure that backgrounds were now only displayed through openings such as glass windows and doors. This now means that it is possible to present a fully rendered view from outside of the confines of the design area with 'hide walls' turned on and without the 'background' appearing to envelop the entire scene:

## Internal/External Fixtures (v6.0)

In Version 6, Fusion now offers the ability to define whether a door or a window is an 'Internal Fixture' or not. This provides the designer with additional flexibility, based upon the specific design layout. For example, if there is an extension or a conservatory as part of the design, or perhaps it includes windows or apertures which do not connect to the exterior of the building (such as a serving hatch), the designer is given a means to determine whether a door or a window should show a background and allow sunlight to pass through.

This is simply achieved by selecting the door or window concerned and changing the corresponding setting under the 'Settings' drop-down in the 'Attributes' section, of the 'Items' ribbon.
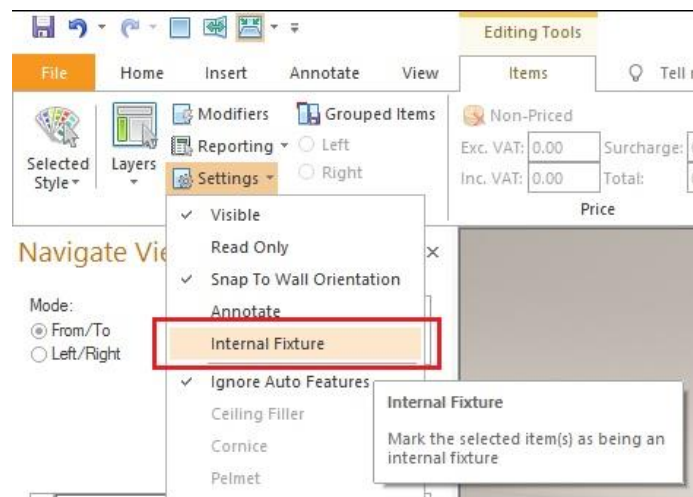


## New Named Views Solution (v6.0)

2020 Fusion's 'Named View' system has been completely reinvented to now offer designers a more user-friendly and consistent solution, with the old named view gallery controls having been removed.

Now, using a 'tab' mechanism at the bottom of the screen, similar to MS-Excel, both automatically generated and user-defined named views can be easily defined, recalled, manipulated and presented.

### Automatically Generated Named Views, aka 'Main Views'

For every design, 2020 Fusion will automatically generate a 'main view' for the Plan view, a main view for every wall in the Elevation view and finally a main view for the Perspective view. The main view names are all preceded by an asterisk '*', indicating that any changes to lighting and layer settings in any one of these views will be 'shared' – i.e. the changes will be applied reciprocally across all other main views.
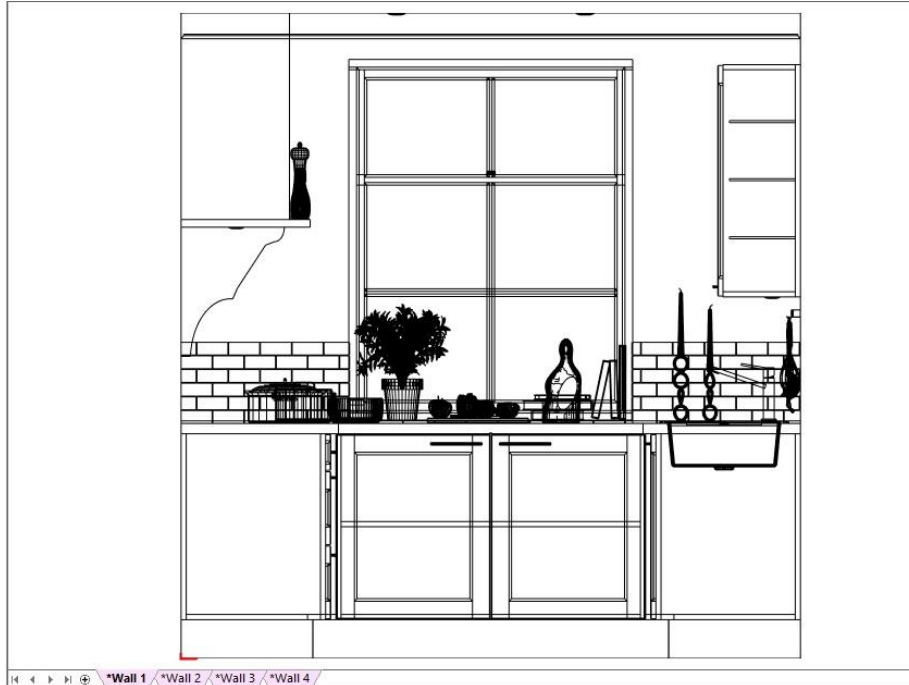


Other elements in each of the main views, such as viewing position, dimension rail settings and annotation settings can still be changed independently in each respective main view.

The main views will be generated with default dimensioning and annotation settings based upon those defined in the corresponding areas of 2020 Fusion's 'Options'.

*Note: Main views cannot be renamed or have their corresponding tabs repositioned.*

### User-Defined Named Views

In addition, the designer can create their own, 'user-defined', named views in each of Plan, Elevation and Perspective. This allows them, for example, to save and recall a Plan or Elevation view without any of the decorative items displayed, or perhaps just showing a worktop layer. In the perspective view, they might wish to present scenes representing different times of day, or a range of viewing positions in the room, or to specifically demonstrate the effect of the user-added lighting within the design.

The creation of a user-defined named view is achieved by clicking on the '+' button at the bottom of the view, just as one would when creating an additional sheet in MS-Excel:
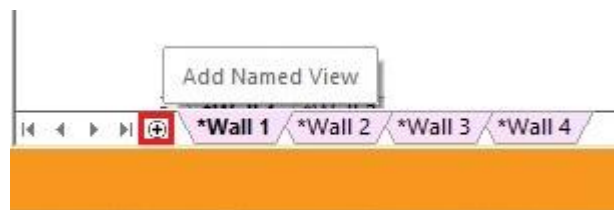
The newly created user-defined named view is then added to the series of tabs, after the main views.
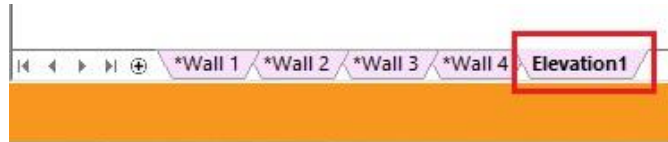


*Note: user-defined named views can be differentiated from main views by the fact that they are not preceded by an asterisk.*

When initially created, all user-defined named views will generally possess the properties of the named view being displayed at the point of creation. If this was a main view, then the newly created user-defined named view tab will share the same background colour (pink) to indicate that the view will also follow the same layer and lighting settings as the main views*.

*Note: User-accessible preferences can be set to determine whether user-defined named views created from a main view will use independent layer and lighting settings at the point of creation; these are found in the 'Named Views' section of 2020 Fusion's 'Options':*



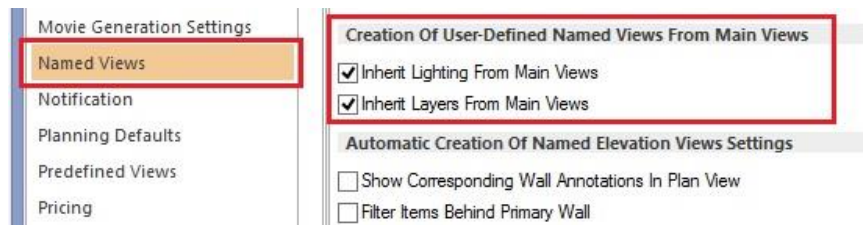To manually make a user-defined named view independent of the main views in terms of lighting settings and/or the layers displayed, its attributes can be changed by right-clicking on the tab and selecting/deselecting the required options:
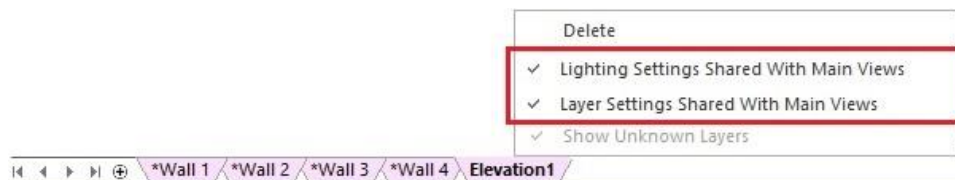


Once a user-defined named view no longer shares its lighting or layer settings with the main views then this will be indicated by displaying a different tab background colour (blue). Changes to lighting and layers can then be made independently, within this named view only, without affecting any of the settings in the main views.
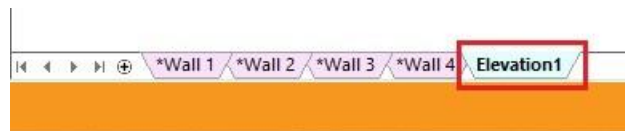


User-defined named view tabs can be renamed and reordered in the same way as is possible in MS-Excel. Double-clicking on a tab will allow the user to rename it and clicking and dragging will allow the user to reposition it.

*Note: It is not possible for user-defined named view tabs to be positioned to the left of any of the main views.*
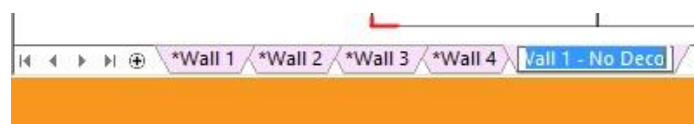
### Saving User-Defined Named Views to Preferences

In Version 6, it is still possible to save a user-defined named view from any of Plan, Elevation, or Perspective for reapplication in other designs. The method of achieving this is via the transfer mechanism in the 'Named Views' section of 2020 Fusion's 'Options':
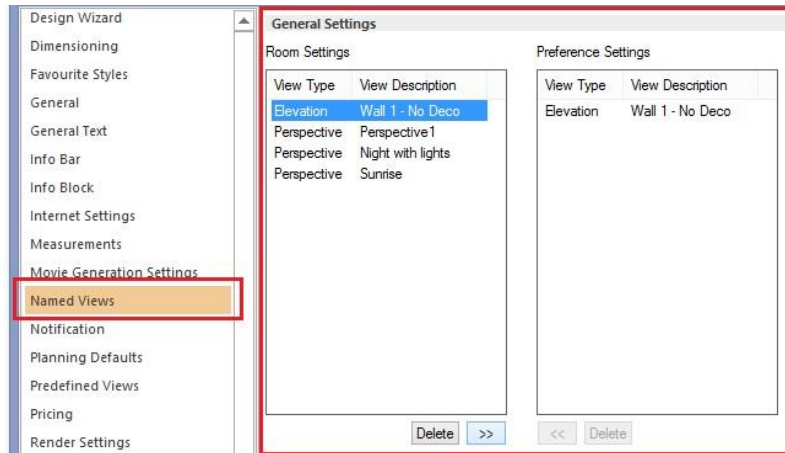


*Note: If the transferred user-defined named view is subsequently updated, then the transfer will need to be repeated in order to ensure that the latest iteration of the named view is available across all designs.*

### Elevation Named Views & The Navigate Palette 'Mini-Plan'

When working in Elevation view, there is a defined interaction between the named view tabs and the mini-plan in the navigate palette, depending upon the type of named view currently selected:

When a main view is selected, the mini-plan will also indicate the wall used by the selected main view. Similarly, in this same scenario, the mini-plan can also be used to select and display the desired main view tab.
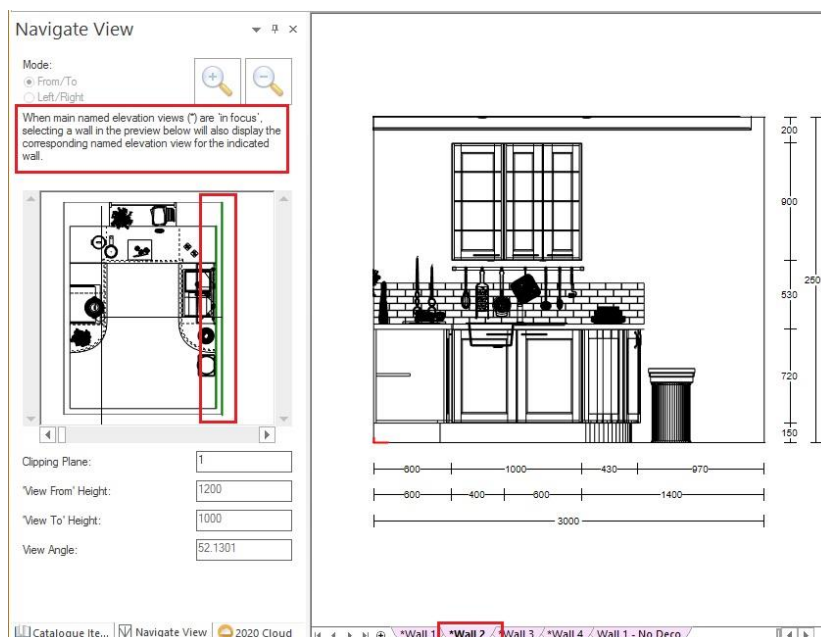
When a user-defined named view is in focus, then the behaviour is different – selecting a wall (or walls) in the mini-plan will directly update the currently selected user-defined named view. Among other benefits, this allows the user to create specific views containing multiple parallel (primary and secondary) walls.
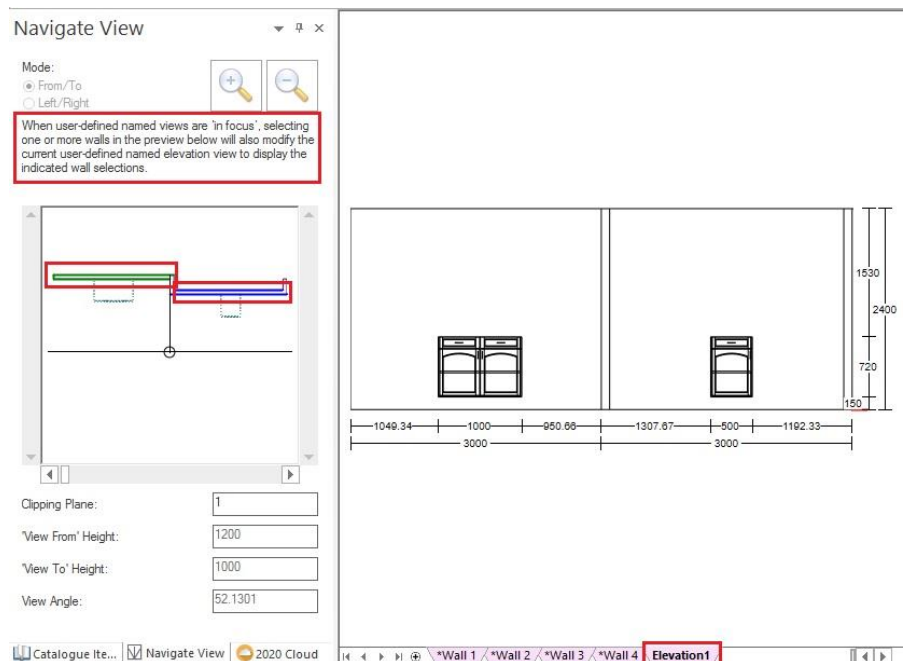


*Note: Guide text has also been added to the navigation palette to indicate to the user which of the two named view types are currently being displayed.*

### Render Caching

Once rendered, a named view will 'cache' the render for immediate recall without having to wait for the render to be reapplied. This will allow a designer to be able to easily switch to different view types or to move between the various named view tabs created without delay.

However, please note that render caching is subject to strict rules and re-rendering will occur if a render was not initially completed in full, or if a change is subsequently made to the design which requires a re-render to be necessary; for example (but not restricted to), the addition of a design item, the deletion of a design item, moving a design item, changing styles, options or materials.

Render caching will even apply to completed renders for a saved design that is closed and subsequently reopened, provided that there have not been any changes to any of the manufacturers' catalogues in the meantime.

### Room Conversion

2020 Fusion will attempt to convert any named views previously created in Version 5 or earlier and recreate them as user-defined named view tabs, in each of Plan, Elevation and Perspective respectively, taking into account the previously shown/hidden layer settings.

### Retired Related Functionality

As part of the implementation of the new named view solution, the following functions have been retired:

- North, East, South and West directional views in Elevation view.

## Addition Of Predefined Named Views to New Named Views Interface (v6.1)

The new named views solution has been further enhanced in Version 6.1 through the addition of dedicated named views in respect of the 'predefined named views', which could previously only be viewed in the 'Print' backstage view.

Such views will be automatically generated whenever a design contains worktops, or if a given wall or floor contains tiling zones, or if a given wall has had installation symbols applied to it.
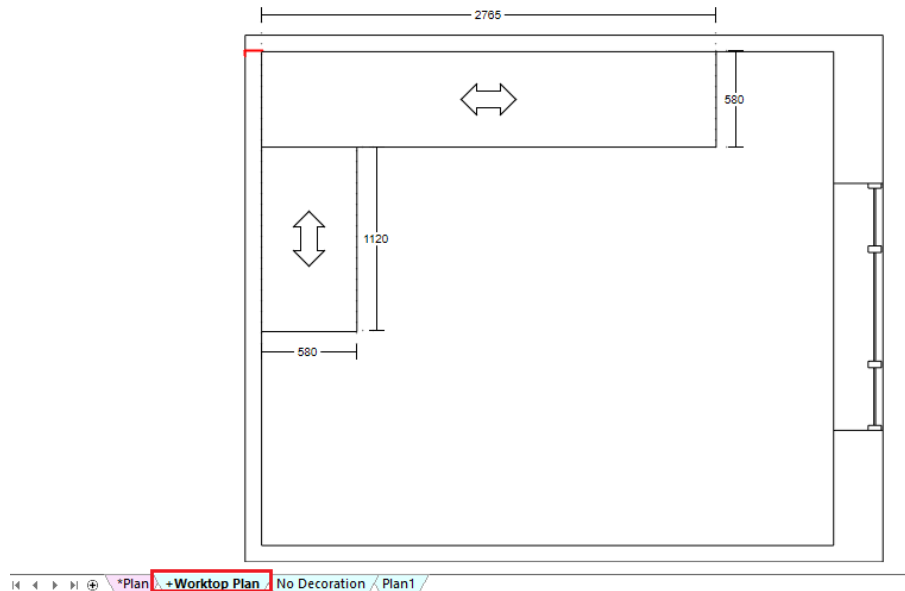


To differentiate from the other automatically generated named views, these views are prefixed with an '+'. The tabs themselves will also default to not follow the layer state of the main views, as they are designed only to show the products that they relate to. The user can override this if they wish by either changing other layer visibilities, or by right clicking on the named view tab itself and choosing to follow the main view's layer settings.

The default dimensioning and annotation settings for such views will continue to be dictated by the settings defined in the 'Predefined Views' area of Fusion's 'Options', although these can, of course, still be modified on a per named view basis.
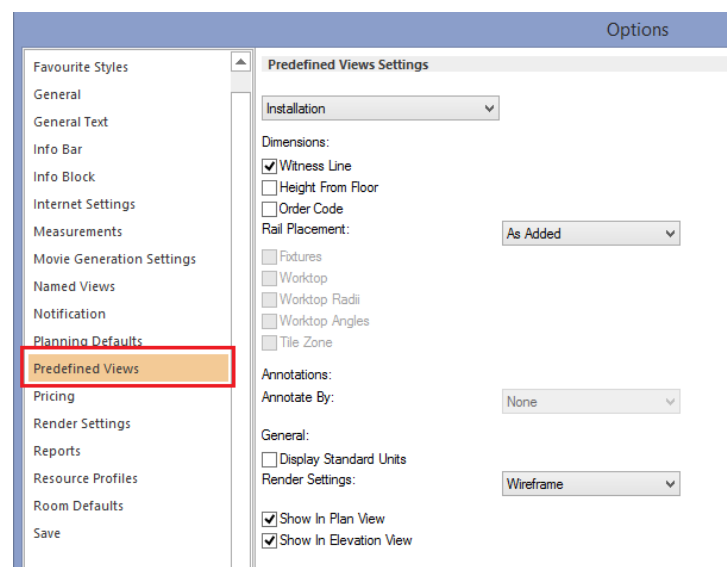
## 'Live Perspective' Tracking Mode (v6.1)

Users of previous versions of 2020 Fusion will no doubt be familiar with the 'Active Perspective' tracking mode in the perspective view, in which a view is automatically updated and centred, based upon the selected items in the design. In Version 6.1 onwards, this same concept has been extended to also offer a 'Live Perspective' tracking mode, in which a view is automatically updated and centred, based upon all the currently visible items in a design, regardless of selection. The benefit of this mode is that a perspective view will continually update as products are added, but always ensure that whole design is displayed to the best effect.

Following the addition of this new option, users have the freedom to choose to operate in one of three tracking modes – 'Live Perspective', 'Active Perspective' and 'Manual' – with 'Manual' continuing to allow the user to independently define their own viewing positions without any automated assistance.

The user will automatically enter the Manual tracking mode if they were previously in the Active Perspective or Live Perspective modes and they have subsequently repositioned the view using the 'Navigate Mini-Plan' or using the 'Navigate' mode on the 'View' ribbon.

The 'Birds Eye' view is now regarded a subset of the Manual tracking mode (i.e. if you select Bird's Eye then you will automatically switch to the Manual tracking mode); however, the Bird's Eye view will now dynamically update to always remain positioned in the centre of the overall design area, even as it is made larger or smaller.
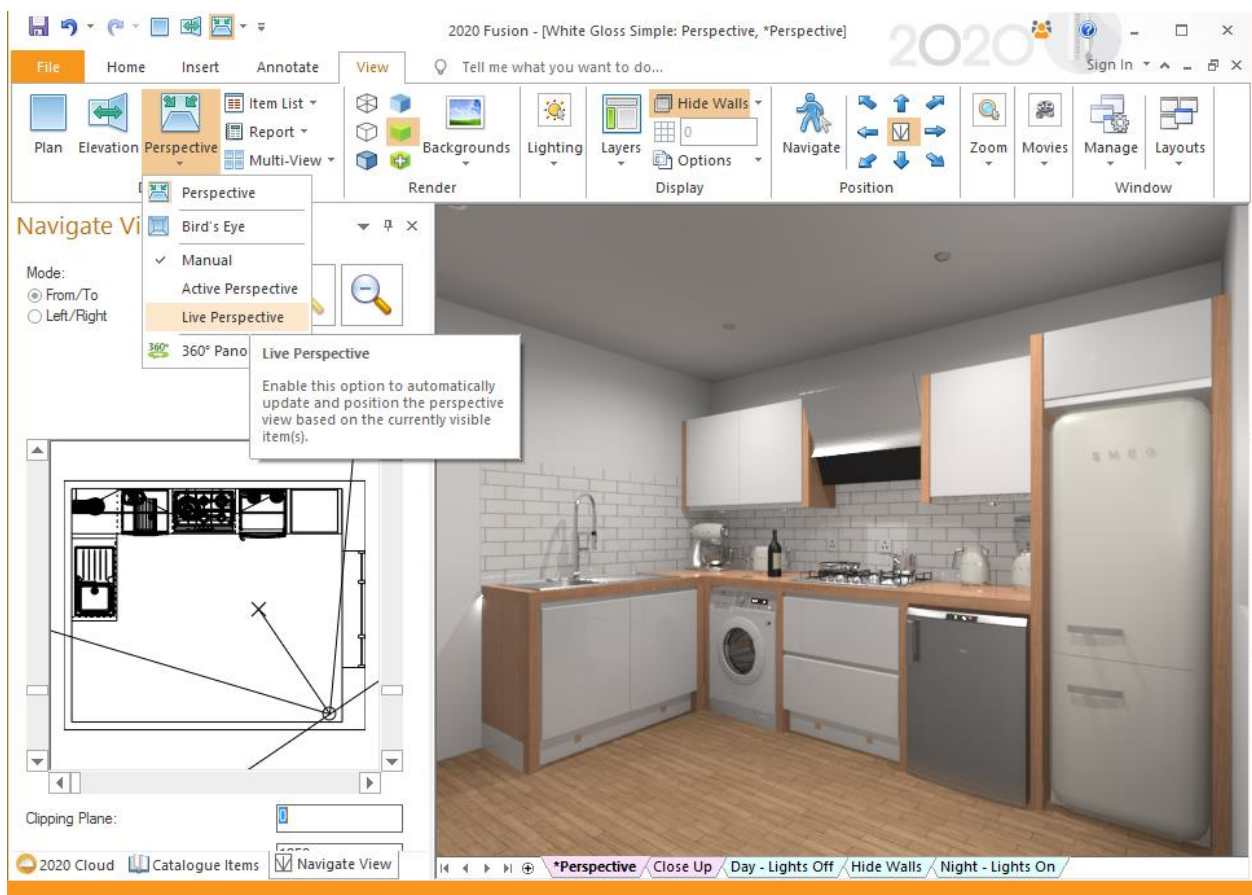
The default tracking mode for both design views and presentation views can be defined in the 'View Settings' section of 2020 Fusion's 'Options':
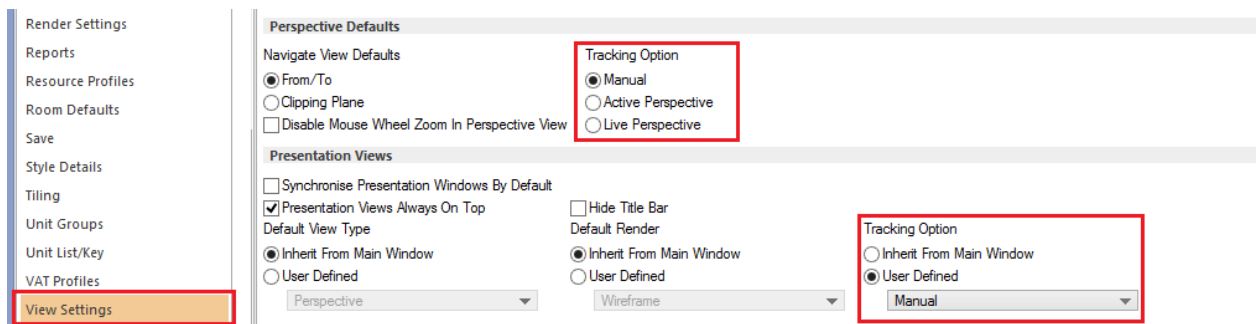


Note: These three modes operate on a per named view basis, so it is possible for the user to define different modal behaviours for each respective view.

Finally, as a result of implementing Live Perspective, it was felt that the 'Default' button was now effectively redundant (as Live Perspective is essentially an 'intelligent default') and, as such, it has now been retired.

## Preference for 'Filter Behind Primary Wall' to Also Consider Lighting Units (v6.2)

A new (hidden) preference has been added to 2020 Fusion which allows designers to also filter out lighting units in elevation views when using the 'filter behind primary wall' option. Previously, lighting units were exempt from this option in order to maintain a consistent lighting effect across filtered and unfiltered views. However, some users expressed a preference to not to see the lighting units at all when filtering behind the primary wall, regardless of the impact this might have upon the overall lighting effect.

[Customise]

HideLightsFilteredBehindPrimaryWall = "0" or "1"

The default behaviour is to show the lighting units when filtering behind the primary wall (as per the historical behaviour).

| *Preference Off* | *Preference On* |
|---|---|
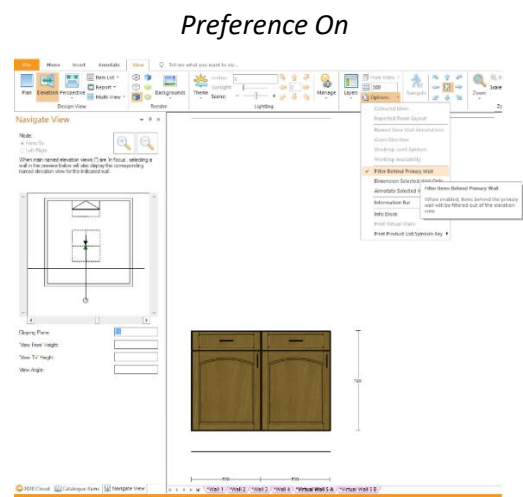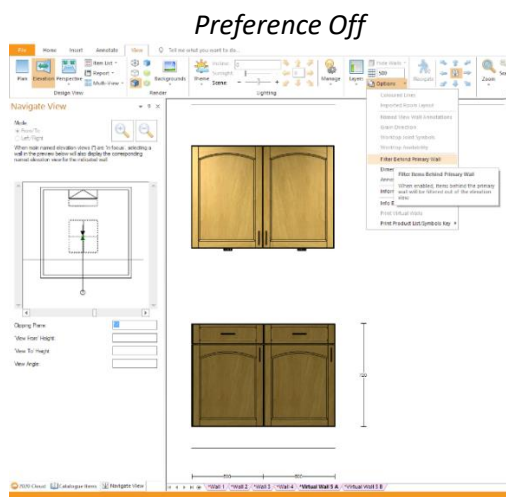
## Ability to Post-Process Views (v6.3)

In Version 6.0, a new rendering solution was added to 2020 Fusion. As part of the initial phase of development, it was necessary to remove the brightness and contrast functions on the 'View' ribbon. Version 6.3 sees these tools return, but as part of a new and dedicated 'Effects' ribbon, which allows a designer to apply a whole range of post-processing effects to a Presentation or Presentation Plus render.

Most are applied using a slider, with the mid-point being the 'default' level. All effects operate on a per named view basis and will be copied when duplicating a named view. Moreover, the effects can even be adjusted whilst a render is being generated!

The effects are:

- *Pick White Point/Black Point* – allows the user to mark a pixel in the design as a 'white' or 'black' reference point. Upon doing so, the whole image will readjust accordingly.

- *Brightness* – allows the user to adjust the overall brightness of the design.

- *Contrast* – allows the user to adjust the overall contrast of dark and light colours in the design.

- *Shadows/Highlights* – increases/reduces the specific impact of darker or brighter design areas.

- *Colour Temperature* – reducing the colour temperature gives the design a warmer (orange-red) effect; increasing the colour temperature makes the design feel cooler (blue).

- *Colour Saturation* – increasing the colour saturation will make colours feel stronger; reducing the colour saturation will reduce the proportion of colour in the render, with a greyscale image resulting at the bottom end of the slider.

- *Reset* – all effects can be reset either individually or collectively.

*The 'Effects' Ribbon:*
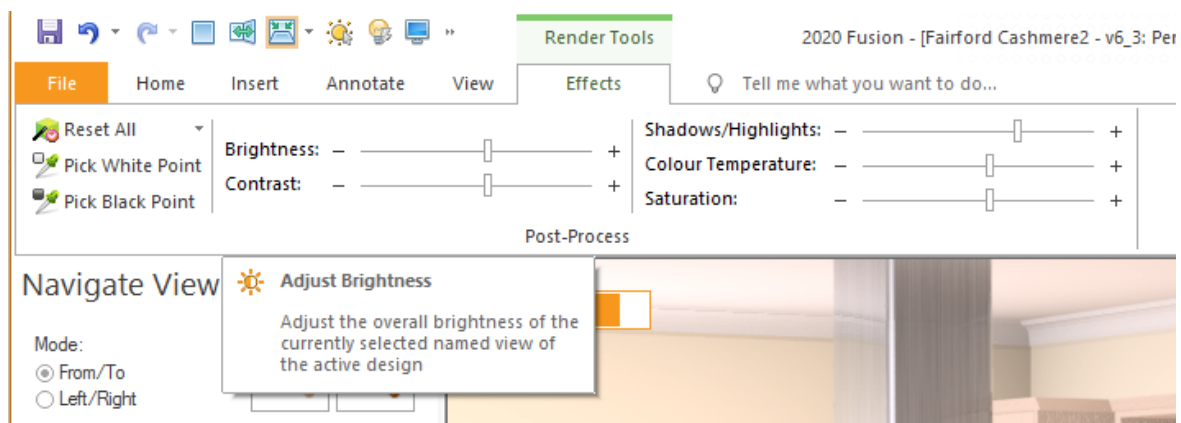
*Examples of Post-Processing Effects:*

Original

Pick White Point

Pick Black Point

Decreased Brightness

Increased Contrast

Shadows/Highlights Reduced

Colour Temperature Increased

Colour Saturation Decreased

### Enhanced Reflectiveness in Presentation & Presentation Plus (v6.3)

Effective from Version 6.3, further modifications have been made to the new rendering solution to specifically address customer feedback concerning the reflectiveness of certain material types, such as high-gloss laminates, in the Presentation and Presentation Plus render types. The result of changes made will be that these materials will display increased levels of reflectiveness that are regarded as more consistent with reality.

### Enhanced Draft and Colour Fill Renders (v6.3)

Further refinements have been made to improve the general representation of designs in the Draft and Colour Fill renders, as well as in the 'Enhanced Preview' dialog. The result will be renders with better definition and less prone to appearing 'washed out'.

### Tooltips for User-Defined Named View Tabs (v6.3)

As part of its 'Named Views' functionality, 2020 Fusion has a colour coding system to determine whether any given named view follows the layer and lighting settings of the default view. If both the layer and lighting settings are the same (i.e. inherited from the main view) then the named view tab is a pink colour; if either (or both) of the layer or lighting settings are independent of the main view, then the named view tab is coloured blue. Of course, in the latter's case, the colour coding alone does not make it immediately clear which settings are independent and which are not. To overcome this, a new tooltip will indicate to the user exactly which settings are independent and which are not for any given named view, so that it is not necessary to right-click on the tab to review their states.
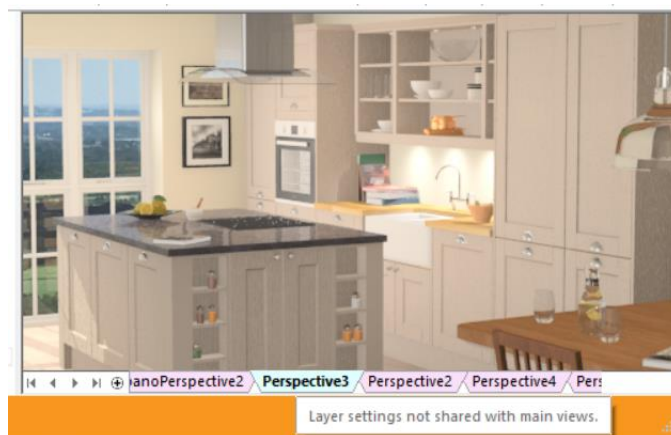


### Ability to Un/Hide Named Views (v6.3)

2020 Fusion produces a number of automatically generated named views across each of its view types, as well as allowing a designer to create as many as they like of their own; this is very useful and powerful functionality. However, when it comes to the process of presenting, printing or export, this has the potential to lead to many 'unwanted views' being offered – for example, walls with no design items on them, walls that are too small, 'experimental' views and so on.

In order to provide a solution to this, Version 6.3 draws upon corresponding functionality in Microsoft Excel, in which it is possible to right click on a named view tab and hide it.
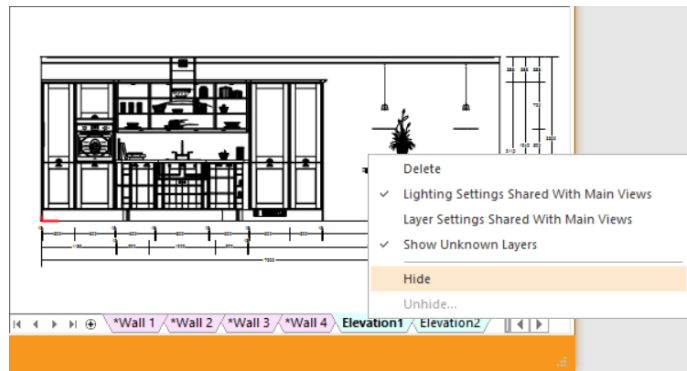
Any view hidden in this manner will also be hidden from all other areas where named views are listed; for example – Multiview, Batch Printing and the Export backstage view.

To restore one or more hidden named views, simply right-click any visible named view tab and select 'Unhide…'; the following dialog will appear from which the required named view(s) can be chosen.
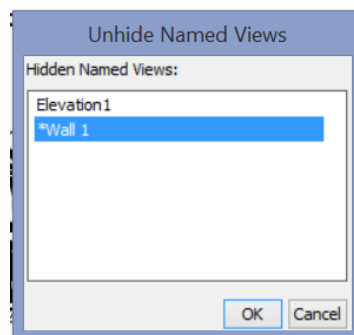


## Elevation Named Views: New Rules for Secondary Wall Selection (v6.4)

Following the implementation of the new named view solution in version 6.0 of 2020 Fusion, many customers reported being frustrated by the fact that they were unable to add 'secondary walls' to the 'main' (automatically generated) elevation named views and that they only had this ability when creating their own user-defined named views.

In Version 6.4, this restriction has now been removed, and designers can now add secondary walls to any given 'primary wall' for which an automatically generated named view had already been created.
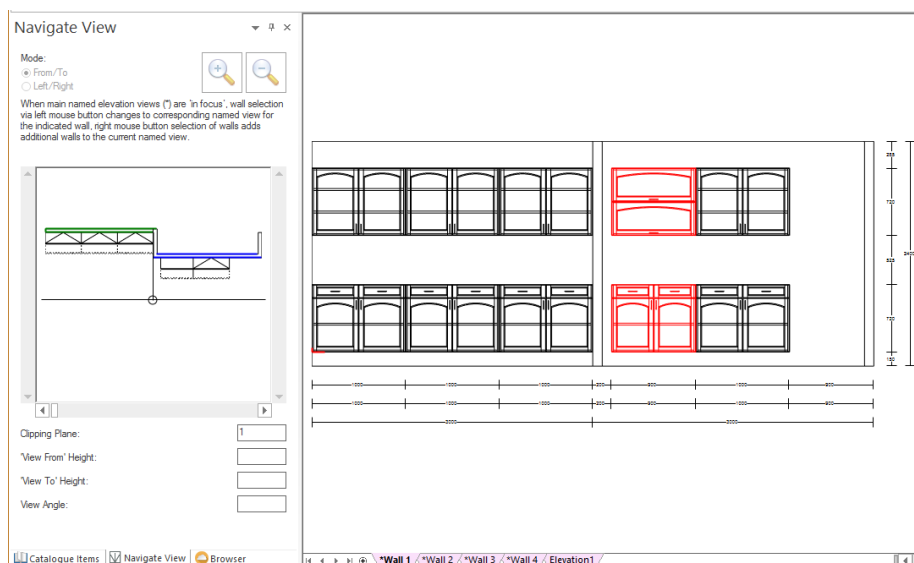
## Indicate Selected Item's Geometry in Presentation/Presentation Plus Renders (v6.5)

In previous editions of Version 6, it was only possible to indicate the selection of a design item in the Presentation and Presentation Plus renders by showing a cube surrounding the boundary of the area that it occupies. By contrast, it was possible to see the full geometry of the selected item(s) in the Planning Renders (Wireframe, White Fill, Colour Fill and Draft).

In Version 6.5, representation is now consistent across all render types – both Planning and Presentation.

| *Version 6.4 and earlier* | *Version 6.5 onwards* |
|---|---|
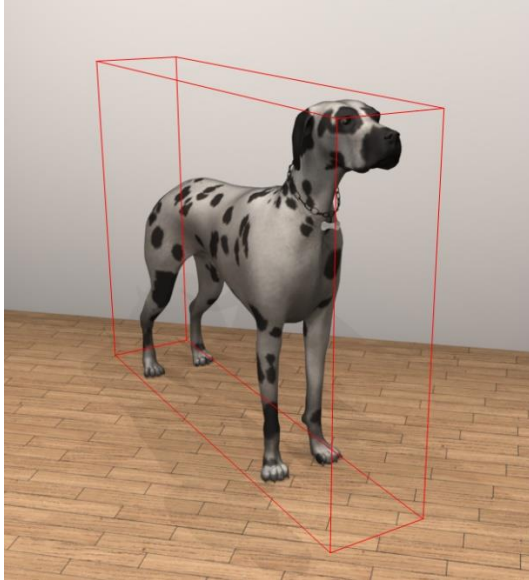


# Printing & Export

## Retirement of 'Restrict Image Size' Checkbox (v6.1)

With 2020 Fusion now operating as a 64-bit only application, the application no longer needs to offer the user an option to restrict the image size for BMP, JPG and PNG exports; this option was only necessary in response to memory issues when working in a 32-bit environment and so is no longer relevant. Instead, a new (hard coded) maximum of 20,000 pixels for each of the width and height values will apply to the three export formats indicated.

## Print Areas to Be Named View Specific (v6.1)

2020 Fusion's 'Print Areas' functionality allows a designer to be able to select a specific area of a given plan or elevation and choose to only print a view of that area. Previously, Print Areas operated on a global level but now, from Version 6.1 onwards, this now operates on a per named view basis, in association with Version 6's new named views solution.

*Example of a plan view named view with a print area defined*
*(Note: In this illustration 'Page Breaks' have been set to 'Visible' in the 'General' section of Fusion's 'Options')*



In practical terms, this means that a designer can now create multiple named views, with print areas only being applied to those that they choose. When previewing a named view in the 'Print' backstage view for which a print area has been defined and applied, the print area will be offered by default:

## Ability to Export Multiple Named Views Simultaneously (v6.2)

For BMP, JPEG, PDF and PNG export formats, 2020 Fusion now offers the user the time-saving ability to export multiple named views in a single action. The user interface for each of these options has been updated to include a list of all available named views that have been created in each of plan, elevation and perspective, with the current (active) named view being selected by default. The user can then select (check) any other named views that they also wish to export and the image generation for all views will be managed as a single process.

The chosen export name will be used as a 'prefix' for all exported views, with each individual exported file being suffixed with the name of the named view itself.
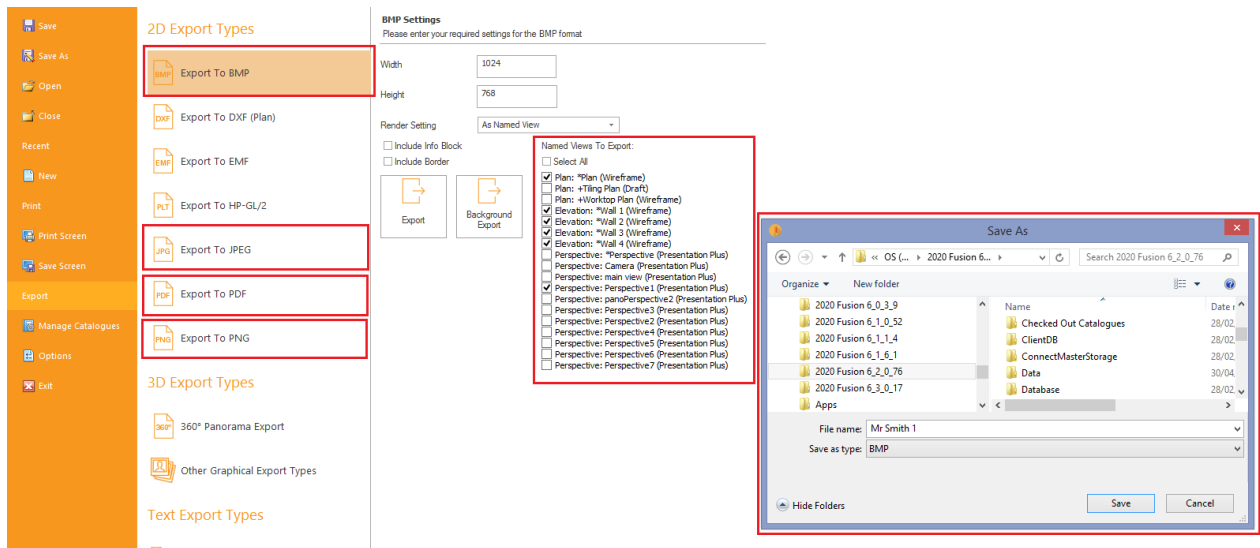


## Batch Printing: Allow Different Printers (and Paper Trays) Per Batch Set Entry & Batch Printing Dialogs: Improved User Interface (v6.2)

2020 Fusion designers now have even more flexibility than ever when it comes to batch printing design views, with a revamped user interface and additional configuration options. Working in a consolidated and resizable dialog, users can now make specific choices for the printing of each named view comprising the batch set; these choices previously included the orientation (portrait or landscape), the print type (file, paper, or both), but now has been extended to offer the following options for the individual named views:

- Whether to include print areas
- The destination printer (default or nominated)
- The print tray of the designated printer (auto or nominated).
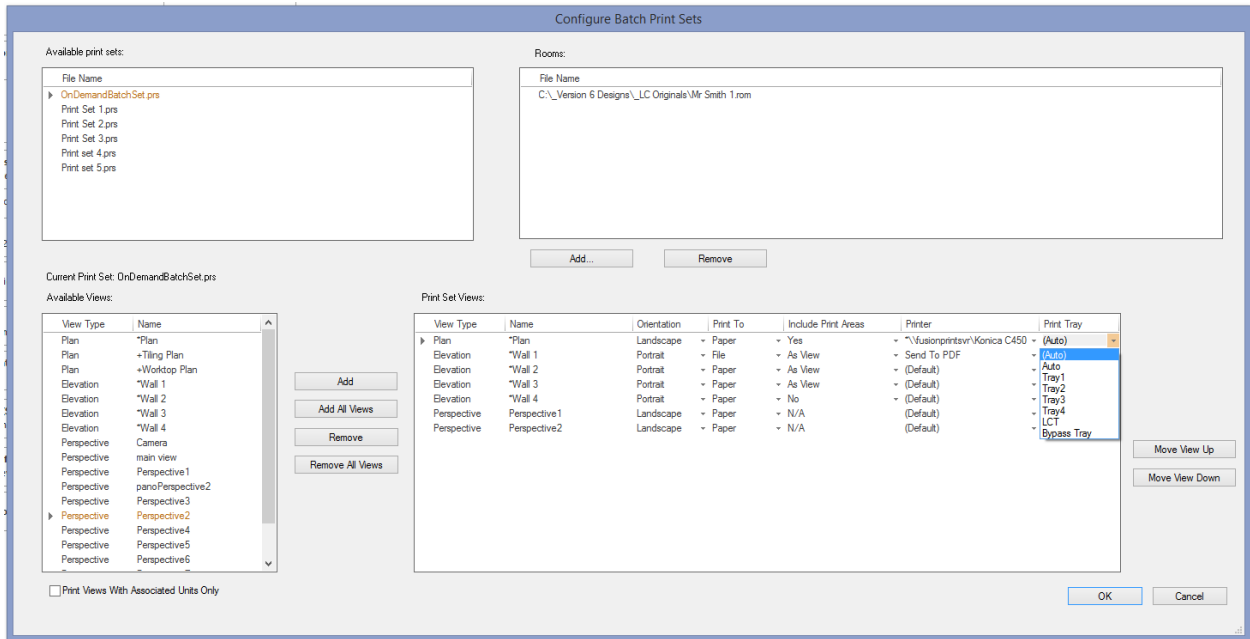
In addition to the above, users are now also able to rename predefined batch print sets created in the 'Batch Printing' section of 2020 Fusion's 'Options'.
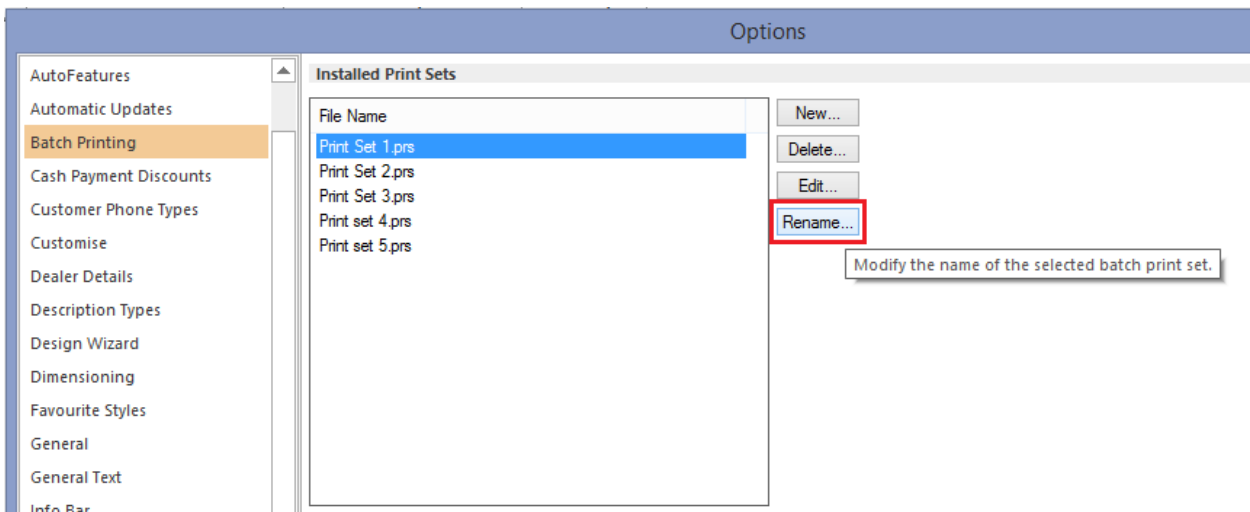


## Extend Background Processing Percentage Progress Indicator to Rendering, Exporting and 360° Panorama Generation (v6.2)

Building upon the existing behaviour for movie generation commands performed as a background process, the 'completion percentage' of the current task being processed - displayed in the '2020 Fusion Background' application - will now also be shown for 360° Panorama generation, standard printouts (including batch print sets) and image exports (including the new batch export functionality introduced in Version 6.2).

**Note: this new functionality is on the precondition that these actions are using the 'Presentation' or 'Presentation Plus' render levels.**
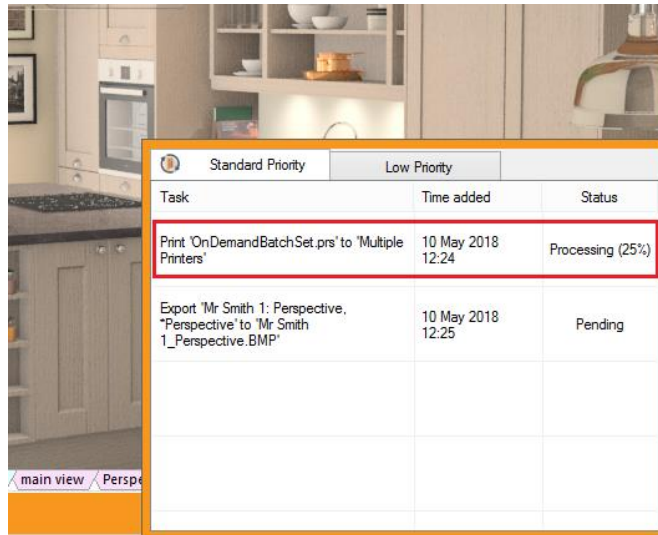
## Installation Symbols Key: Choice of Representation of Symbols and Flexible Grid Management (v6.2)

New functionality has been added to the installation symbols key feature allowing the end user to decide if they wish to apply the installation symbol used in the Catalogue Items palette (existing functionality), or if they wish to apply the 'design image' as displayed in the view itself. This can now be determined in the 'Unit List/Key' preferences in 2020 Fusion's 'Options'.
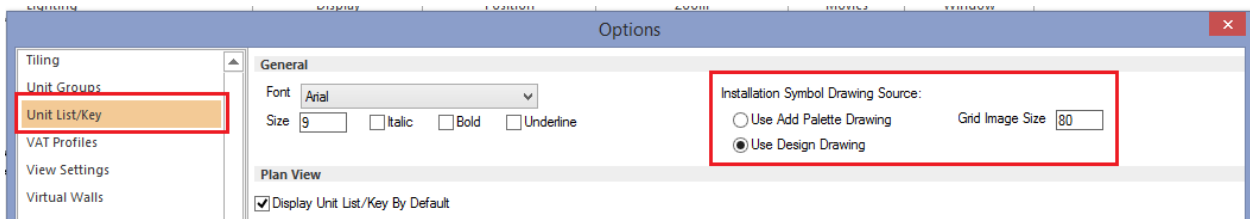


In addition, the user can now also determine the grid (cell) size of the installation symbol key, with the default being the existing size of 80 x 80 pixels.

*Example of Print (Preview) With the Installation Symbol Referencing the Design Image*
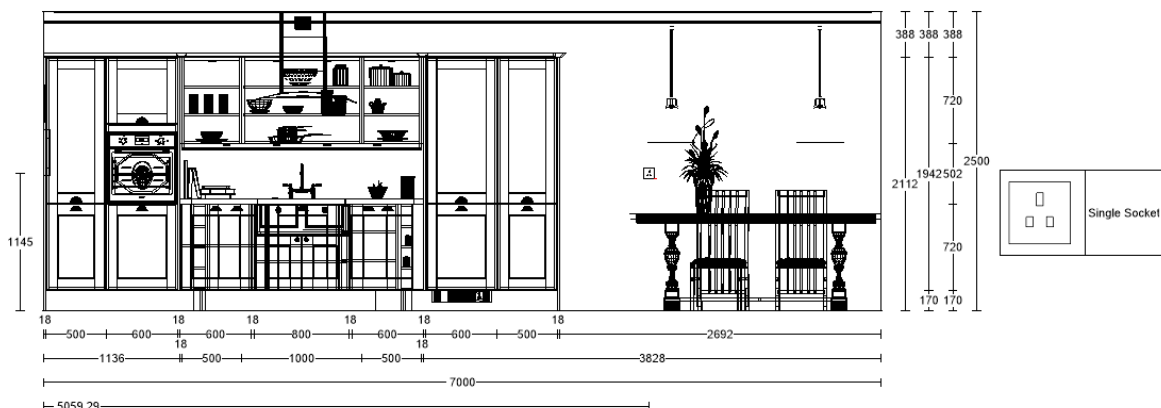
**Named View Name to be added to PDF files created via 'Send To PDF' (v6.2)**

When printing to PDF using 2020 Fusions' *internal* 'Send to PDF' facility, new default naming conventions are now applied, making this area of printing and exporting consistent with all others. The new naming conventions are:
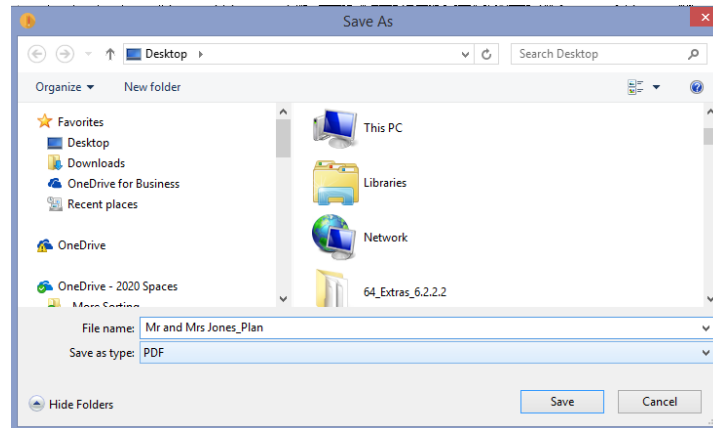
- *'Room name'_'Named View Name'.'PDF'* when printing plans, elevations and perspectives via the internal 'Send To PDF' printer option.

- *'Room name'_'View Type'.'PDF'* when printing reports, item lists and multi-views via the internal 'Send To PDF' printer option.

The user remains free to rename the PDF file at the point that the 'Save As' dialog is presented.



**Ability to Set Paper Size within the Print Areas Modal Ribbon (v6.4)**

Previously, when defining a print area within a 2020 Fusion design, a majority of its properties could be set within the dedicated Print Area modal ribbon. However, it was only possible to define the paper size used for a given print area within the 'Print' backstage view. In Version 6.4 onwards, a designer can now define the paper size in either location, giving them full flexibility. Any changes made in one area will also be reflected in the other.
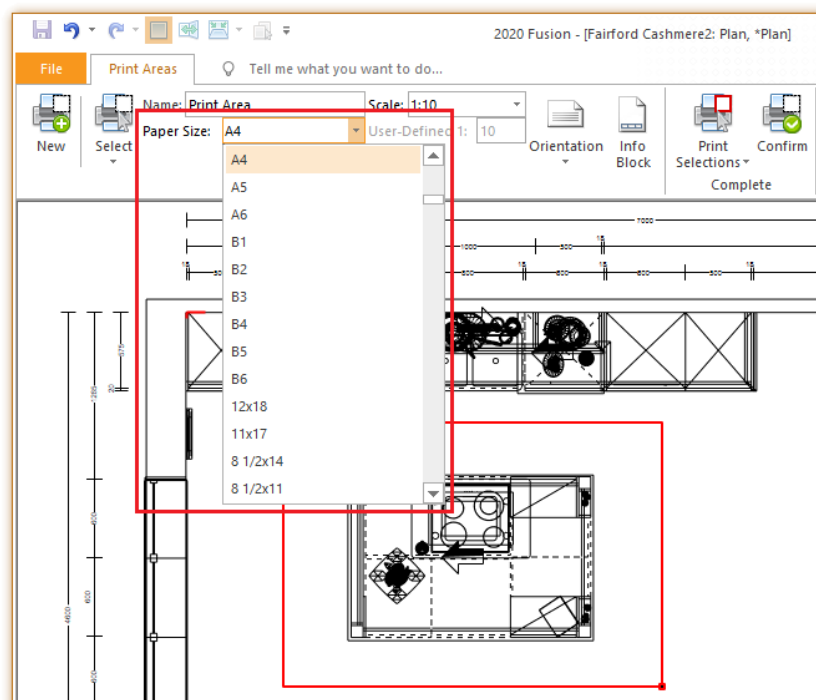
## Image Export: Option to Include Unit List/Key (v6.4)

2020 Fusion's image export functionality has been further enhanced to allow the designer to also to include the plan/elevation view 'key', detailing either a list of visible items in the design, or the list installation symbols used. This option is available when exporting to any of the following formats:

- BMP, EMF, HP-GL/2, JPEG, PDF and PNG
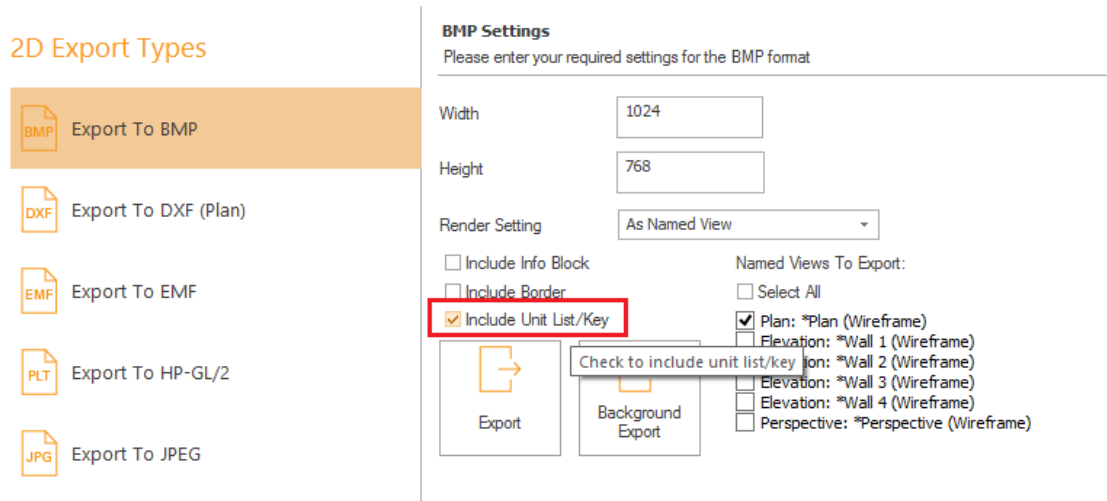


Please note that for an export to be generated including a key, one must have first been configured in the 'Unit List/Key' area 2020 Fusion's 'Options', just as is the case when printing plans or elevations including a unit list or installation symbol key.

Please also note that this functionality does not extend to the image export functionality available via 'Save Screen', when right-clicking on a plan or elevation view.

## Support for AutoCAD 2018 & 2019 (v6.5)

The 2020 Fusion design and Catalogue Editor content creation applications were previously limited in their ability to import AutoCAD drawings, supporting up to and including AutoCAD 2017.

As of Version 6.5, a user will be able to import AutoCAD version 2018 & 2019 3D models into 2020 Fusion and Catalogue Editor. The 'Import Template' feature of Fusion will also be updated to support AutoCAD version 2018 & 2019 files.
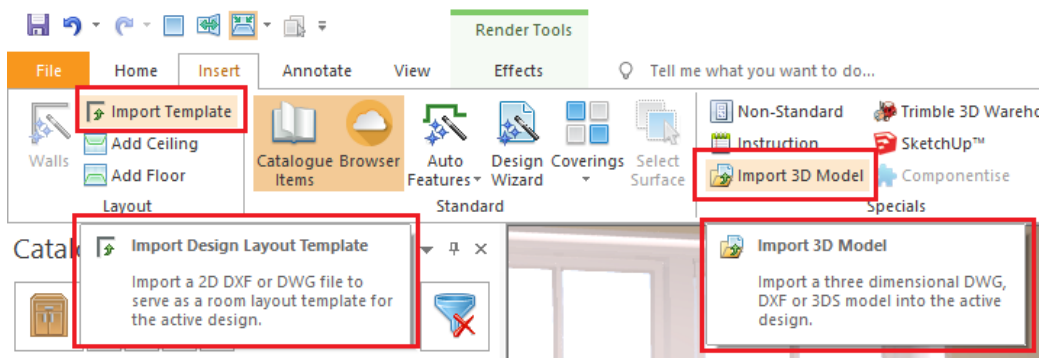


**Note: there has not been any change made to the existing AutoCAD *export* functionality in 2020 Fusion; i.e. AutoCAD 2000 continues to be the version used for exported files.**

### XML Export: Optimised Design Items to Also Consider Material Changes in Source Graphic Item (v6.5)

A change has been made to 2020 Fusion's XML export functionality in respect of any items that are optimisable. The result of this enhancement is that any colour overrides made via 'change material' for graphical design items will also be applied to (i.e. associated with) their corresponding 'order items', generated as a result of the optimisation process itself.

## Pricing, Reporting & Ordering

### No Prompt For Style Details After Running Block Evaluation (v6.2)

In previous versions, 2020 Fusion had the potential to generate a prompt for style details after running Block Evaluation. It was recognised that such a prompt was superfluous and, effective from version 6.2, this will no longer be presented, with the options being automatically set with the values defined within the block items themselves.

### Linked Watermark Images in Report Wizard Reports (v6.2)

2020 Fusion possesses existing functionality to add a watermark to Report Wizard reports but, up until now, it has only been possible to embed them. This approach is fine if there is no likelihood of the watermark ever needing to change, but some users expressed the need to be able to quickly and easily modify or update a watermark image without being required to edit every individual report that uses it. The solution is to offer the ability to *link* to a watermark image, as opposed to *embedding* it. As long as the file name, format and location of the referenced image remains consistent, then it can quickly and easily be updated once only and the revised image will be automatically referenced by all relevant reports.
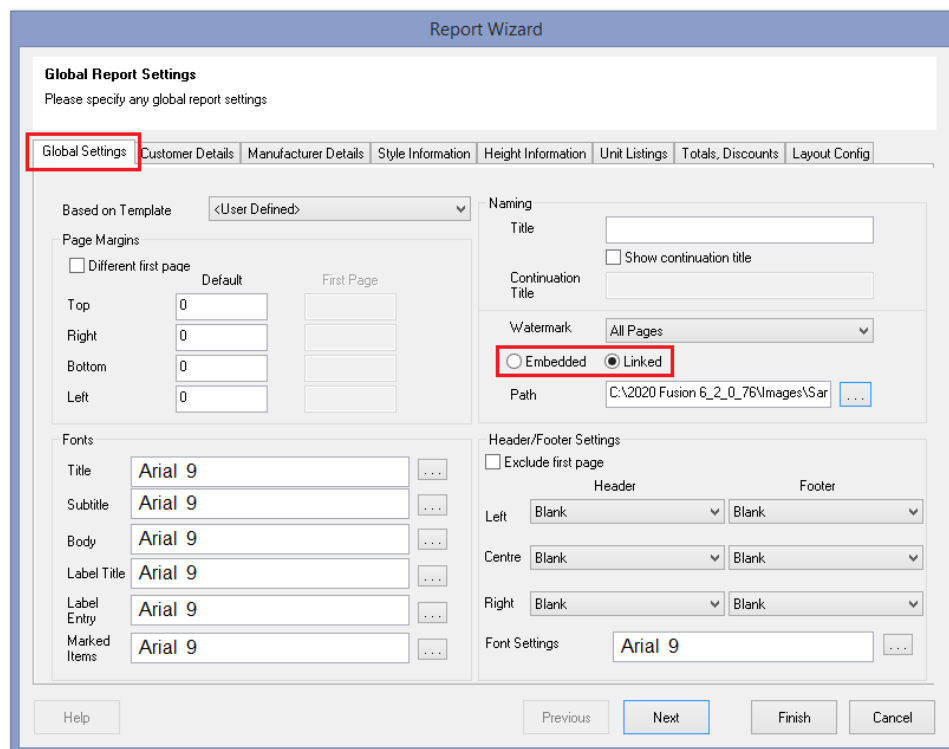
## EANCOM Ordering: Option to Make Order Contact Name, Telephone & Email Address Mandatory (v6.3)

Some manufacturers who use EANCOM have reported many instances of receiving orders from 2020 Fusion without the contact information being populated. This leads to unnecessary time being lost in trying to identify the sources of the orders. Although not regarded as mandatory fields in the EANCOM standard documentation, many customers have nevertheless asked for the option to enforce their completion on the 'Fusion side'. As such, the following (hidden) preference can now be added to the EANMAP.ini file to facilitate this:

*[Export]*

*ContactInfoMandatoryForExport = "1"*

With the preference set, if any of the above fields are not populated, then the Order.EDI will not be sent.

By default, i.e. without this preference explicitly set, these fields will remain optional and the order will continue to be sent without them being populated.

## EANCOM Ordering: RFF+UC Line Item Configuration (v6.3)

Functionality has been added to allow the customer details and design name displayed in the 'RFF+UC' line in an EANCOM order to be configurable. A new preference of 'CustomerReferenceType' has been added to the EANMAP.ini file under the [Export] heading. Four entries allow the following to be achieved:

- Entry 1: Dictates if both the design name and customer name ("0", default) or just the design name ("1") is exported.
- Entry 2: Dictates order in which these are listed in the export - either customer name then design name ("0", default) or design name then customer name "1".
- Entry 3: Dictates dictate if the customer title is shown ("0", default) or hidden ("1") in the export.
- Entry 4: Dictate if the customer forename is shown ("0", default) or hidden ("1") in the export.

    *Example:* (When in Connect mode)

    *CustomerReferenceType = "0", "1", "1", "0"*

    *Results in:*

    RFF+UC: Room004 John Smith

## EANCOM Ordering: Product Range Name Changes (v6.3)

The EANCOM ordering solution has been updated in Version 6.3 of 2020 Fusion to align with the requirements of Version 2.03 of the EANCOM standard documentation. This specific requirement now means that the application supports the fact that it is now possible to have up to 60 characters for the style details (product range name) description in the Order.EDI file.

## EANCOM Ordering: Sales Contact Format Changes (v6.3)

In further support of changes to the EANCOM electronic ordering system functionality, a change has been made to the ordering dialog to allow users to set each of the sales contact's title, first name and surname separately. These entries will then map correctly to the corresponding fields in the resulting order files upon generation.

## Report Wizard: Miscellaneous Enhancements (v6.3)

### *233571 Report Wizard: Title Dependent Salutations (Connect Mode Only) (v6.3)*

In 'Connect' mode, it is possible for a wide range of titles to be assigned to a customer, from the simple 'Mr.' or 'Mrs', to more formal terms of address, such as 'Lord', 'Doctor', or 'Sir'. Some Fusion users have indicated that they would like to predefine the specific salutation to be used for customers with such titles in Report Wizard reports.

This is now possible in Version 6.3, with the user now able to customise salutation text for each individual customer title on a report-by-report basis; they can also place customer salutations anywhere in a report via the use of a new "Salutation" data tag.



### *233090 Report Wizard: Catalogue Families to be Used for Style and Height When Showing All Manufacturers (v6.3)*

In Report Wizard, it is possible to specify style and height information for catalogue families using the 'Specific' (manufacturers) option on the Manufacturer Details tab. However, when this option was chosen and a new catalogue family is installed on the system, the new one was not automatically included in existing reports.

New functionality now resolves this problem by also enabling catalogue families when the 'Show All' manufacturers option is selected.
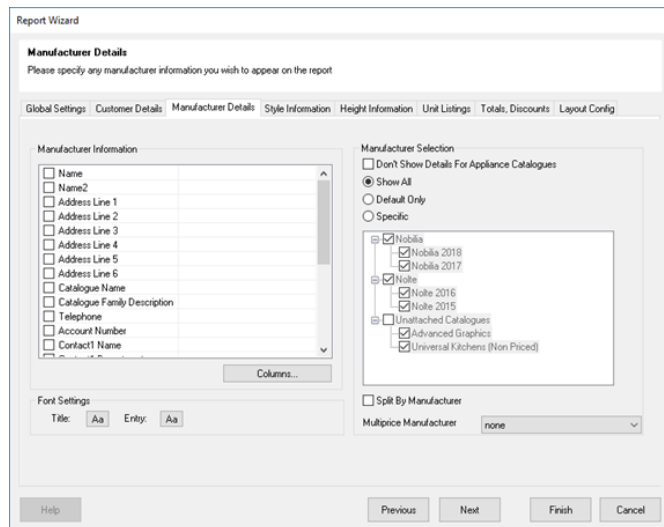


When 'Show All' (manufacturers) is selected in Manufacturer Details, the manufacturer list in the Style Information and Height Information sections of Report Wizard will now list catalogue families instead of individual catalogues from within the families.
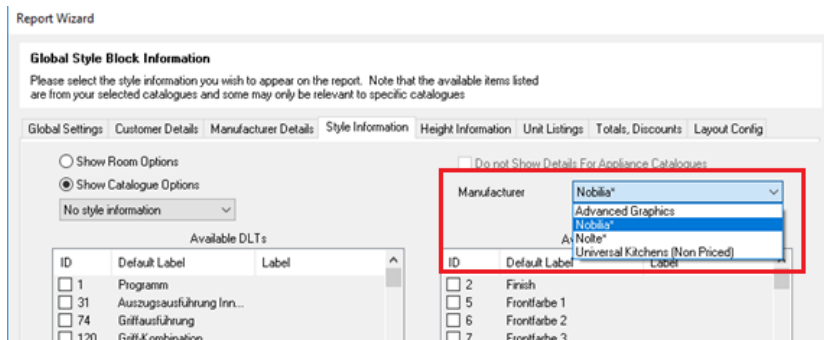


### 233093 Report Wizard: Ability to Show Deposit Including VAT (v6.3)

New options have been added to the 'Totals, Discounts' tab of Report Wizard, allowing a user the option to include VAT in the value of the deposit. In addition, the user can now specify to only show a deposit value if one has actually been paid (i.e. if it is not 'zero').
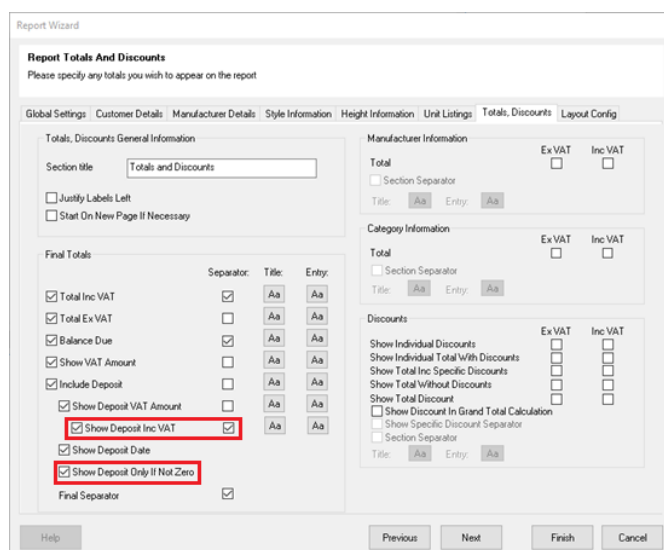
### 241606 Report Wizard: Show Discountable Total (When Using Locked Price Items) (v6.3)

Many users of 2020 Fusion work with items that have locked prices and cannot be discounted. This means that, in terms of reporting, there is a need to indicate the actual discountable total in order to avoid errors and confusion. To address this, a new 'Show Discountable Total (when using locked price items)' checkbox has been added to the 'Totals, Discounts' section of Report Wizard, within the 'Discounts' control group.

The availability of this option is dependent on either the 'Show Total Without Discounts Excluding VAT' checkbox or the 'Show Total Without Discounts Including VAT' checkbox being checked.
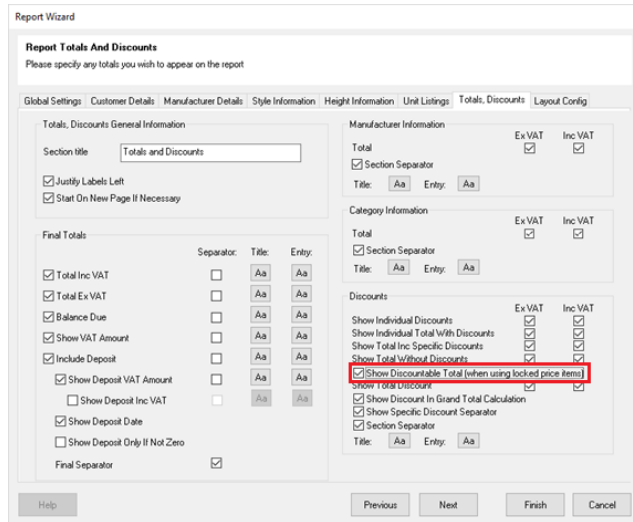


This addition is complemented by a new, editable, 'Discountable Total' label added to the 'Totals, Discounts' tab of the 'Edit Totals Text' area in the 'Layout Config' section of Report Wizard.

### 234116 Report Wizard: Additional Tags for Totals and Deposit (v6.3)

New data tags that map to corresponding fields in the 'Totals and Discounts' tab of Report Wizard have been added to the 'Data Tags' drop-down menu of the 'Free Text' dialog:
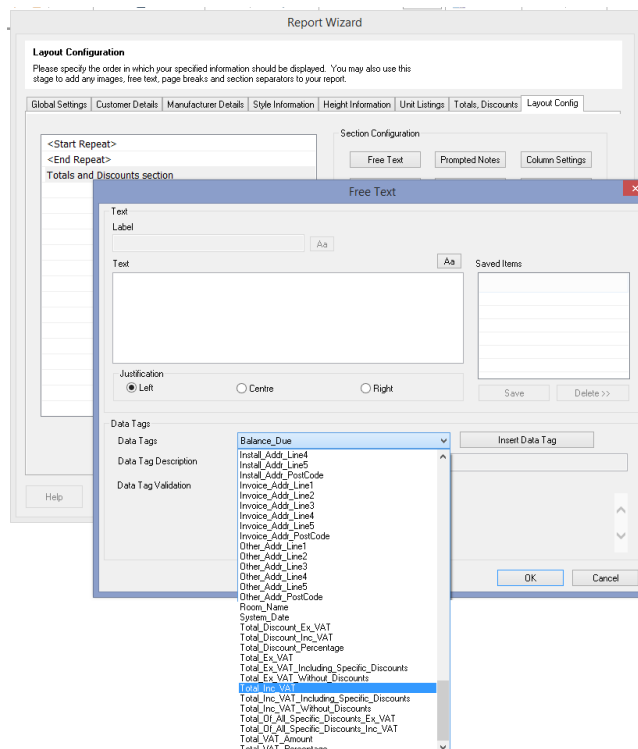
## Preference to Define the Maximum Number of Blocks Displayed (v6.4)

In older versions of 2020 Fusion, the user was able to select a specific manufacturer or even individual blocks which were then evaluated. However, when the Block Evaluation solution was redesigned in Version 5, the initial selection stage was removed and replaced by a dynamic live-filtering system.

However, the new interface had a built-in limit of the top 200 blocks and some users have indicated that this is not always sufficient; indeed, sometimes blocks from additional manufacturers are not shown at all because of this restriction.

The solution has been to add the following hidden preference, allowing an end-user to specify the maximum number of blocks to be shown in the dialog:

[Customise]

NumberOfBlocksShown = "200"

"200" is the (existing) default number of blocks shown in the dialog.

Note: an entry of "0" would signify that there is no limit to the number of blocks shown in the dialog.


## Ability to Change VAT Category More Easily (v6.5)

Although 2020 Fusion's Pricing Control Centre is the established central point for making changes to the pricing of design items, some 2020 Fusion customers have requested easier ways to access this area, as well as requiring the ability to easily make changes to an item's assigned VAT Category via the 'Items' ribbon.

For such customers, a hidden preference has been added to the application which will provide them with these additional levels of accessibility:

[Customise]

ExtendedVATAccess = "1"

When set, the following areas of user interface are changed:

- A direct link to the 'Change VAT Category' (for selected items) is added to the bottom right-hand corner of the 'Commercial' panel in the 'Home' ribbon:
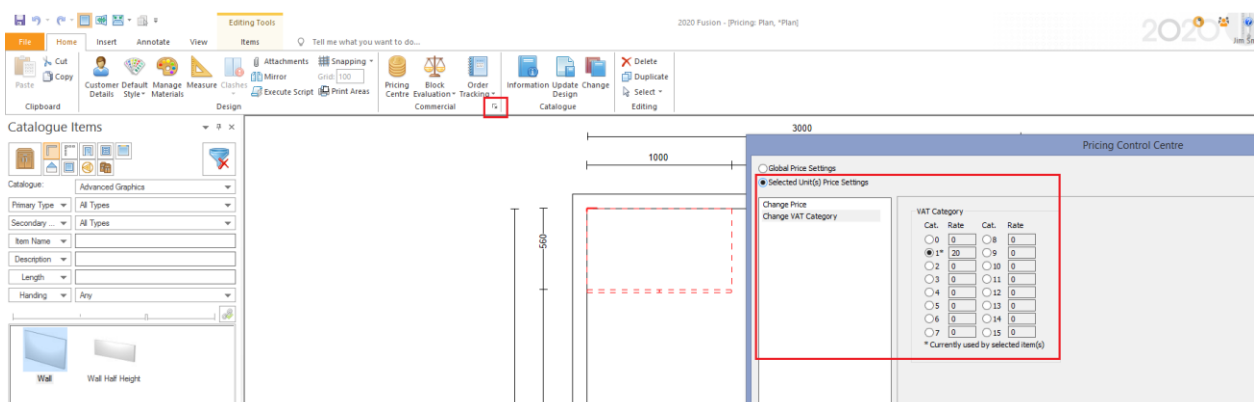
- A drop-down menu is added to the 'Price' panel of the 'Items' ribbon, allowing a user to quickly change the VAT category for a design item without having to go to the Pricing Control Centre.

   **Note: the corresponding entry in the Pricing Control Centre remain present and changes made in either area will synchronise between the two.**
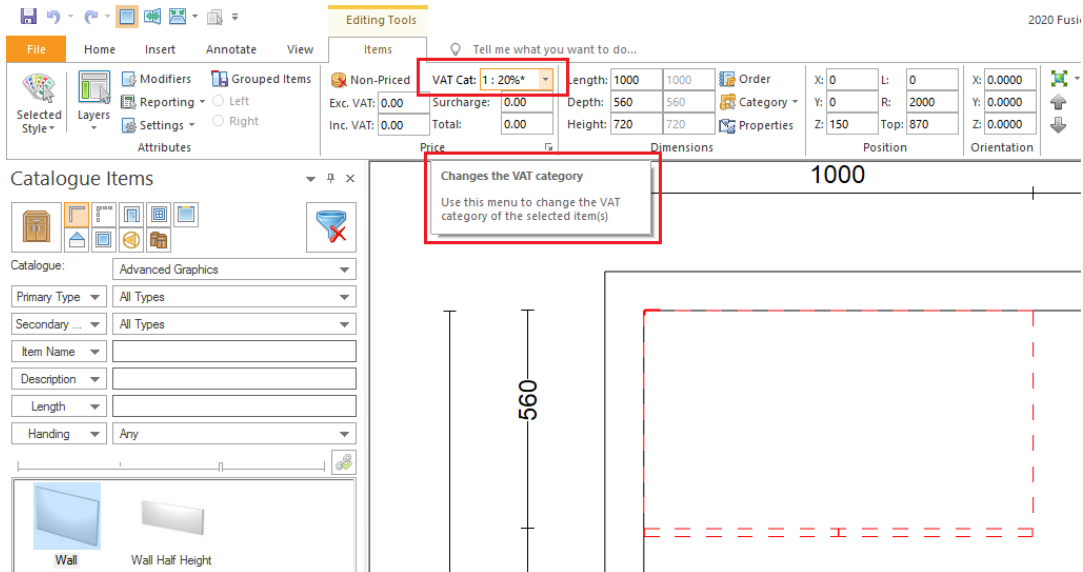


## Catalogue & Customer Management

### Connect: Ability to Define Set a Default Title when Creating New Customers (v6.1)

In previous versions of 2020 Fusion, the 'New Customer' dialog in Connect, would always default to a title of 'Mr.'. Many of our customers indicated a desire to set this to either be blank by default, or to offer an alternative entry.



A new, hidden, preference has been created to allow this default to be defined in Fusion's PPPrefs.ini. For example, the following entry will set the default title to be blank:

[CMS]
DefaultTitle = "16"

For full details of the 'DefaultTitle' options, please contact your local support team.

## Connect Manage Catalogues Dialog: Retain Catalogue Selection After Performing Certain Actions (v6.3)

A simple optimisation to eliminate unnecessary (re)selection has been made in the 'Manage Catalogues' area of 'Connect', whereby the current/appropriate selection is retained after performing the following actions:

- Checking in/out
- Undoing checkout
- Withdrawing and reactivating
- A newly created catalogue will be automatically selected
- A newly installed catalogue will be automatically selected

In addition, checking/unchecking the 'Show withdrawn catalogues' checkbox will have no effect on the current selection if the result is that the currently selected catalogue is still shown.
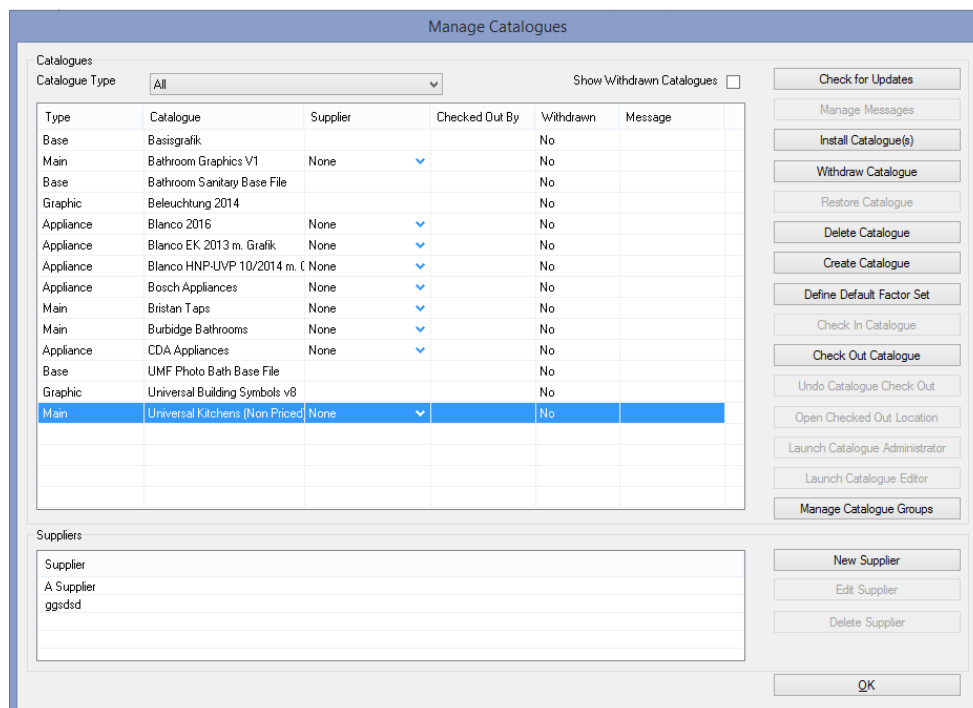


# Scripting & Integration

## Extensions to the 'Report A Problem' (Remedial) Script (v6.4)
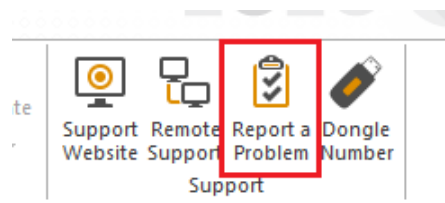


The following improvements have been made to the dialog used by end users for reporting issues to 2020 Support:

- All fields have been made wider
- More room added for the description of the problem

- Optional 'Phone Number' field
- Fully translatable interface
- GDPR compliant - i.e. personal customer information held within a design is not shared with 2020.



# Miscellaneous

## 64-bit Only Application (6.0)

After many years of offering 2020 Fusion in both 32-bit and 64-bit variants, it was identified that almost all our customers were operating using 64-bit hardware and operating systems. After a further period of consultation, it was therefore decided that, effective from Version 6.0, 2020 would withdraw the 32-bit variant of the application and focus solely on the development of the 64-bit edition.



## New Help System (6.0)

2020 Fusion's newly updated online help system is accessible via the F1 key command and will launch an extensive library of reference materials on all subject areas of the application.

Additional 'context specific' help triggers have also been added, meaning that when you press F1 in many areas, Fusion will not only launch the help system, it will also take you directly to the topic relevant to where you are.

Finally, the 'Tell me what you want to do…' functionality emulates the corresponding interface found in MS-Office 2016, allowing you to quickly search for and easily select menu specific options and commands.
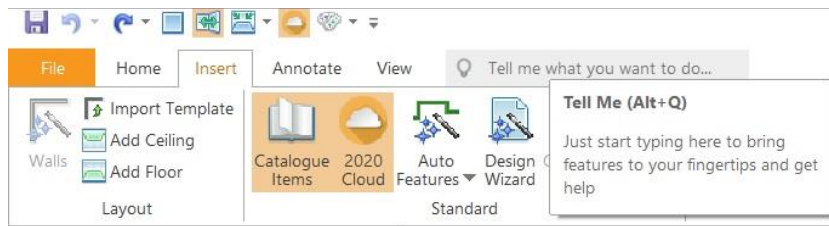


## Windows 10 Certification (6.0)

2020 currently enjoys the position of being a 'Microsoft Gold Certified Partner' and, as such, we continuously endeavour to pursue and attain all relevant testing certification from Microsoft for the 2020 Fusion product.

As a previous recipient of Windows XP, Windows Vista, Windows 7 and Windows 8 certifications, 2020 Fusion Version 6 has also been submitted for the status of 'Windows 10 Compatible'.



## Improved Stability and Robustness of Planning & Navigation Renders (v6.5)

Many optimisations have been undertaken in Version 6.5 to provide resolutions in a range of areas relevant to 2020 Fusion's planning and navigation renders. These include: more efficient memory usage and management, resolutions to specific issues concerning the representation of lines and textures, improved speed of entering and exiting modal ribbons and resolutions to specific issues concerning the previewing of products and designs.