

2020 Fusion

What's New in Version 6?

(Up to and including Version 6.0)



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.

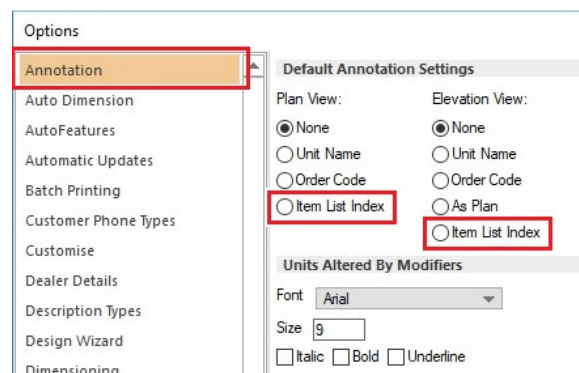
Annotation

New Numeric Annotation Mechanism (6.0)

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).

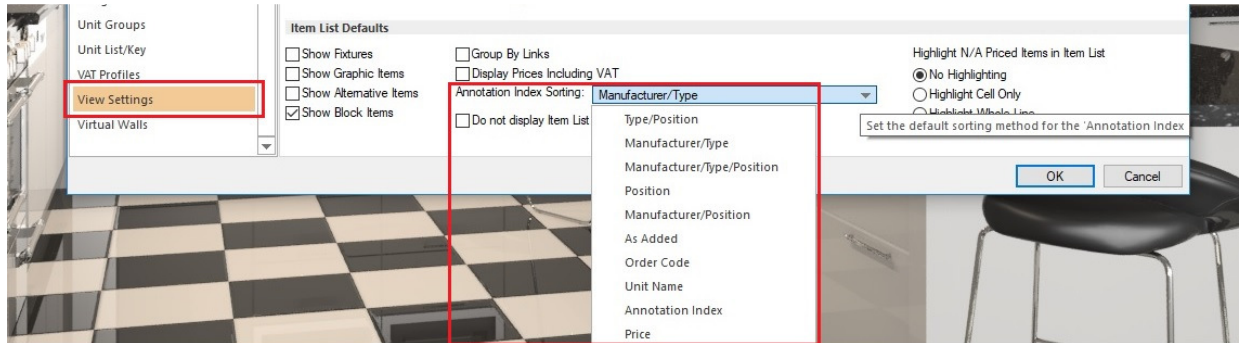
Now, consistent indexing of design items is guaranteed across all views, following a change which makes the Annotation Index sorting method, defined in the Item List view, the driving force behind all numeric annotation displayed in the plan and elevation views.

As before, the default annotation type can be defined in the ‘Annotation’ section of Fusion’s ‘Options’:

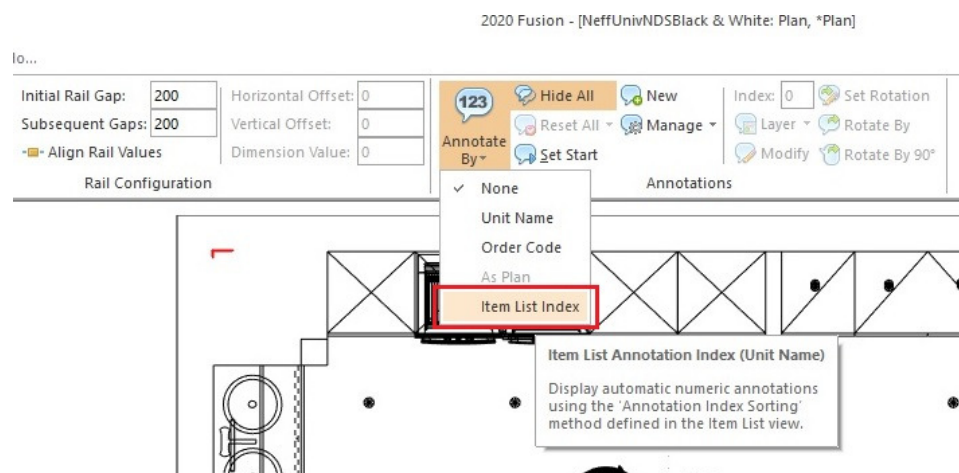


But, as the above illustration indicates, 'Numeric' is no longer an available option in Version 6. Therefore, in order to apply numeric annotation to a Plan or Elevation view by default, the user must choose 'Item List Index'.

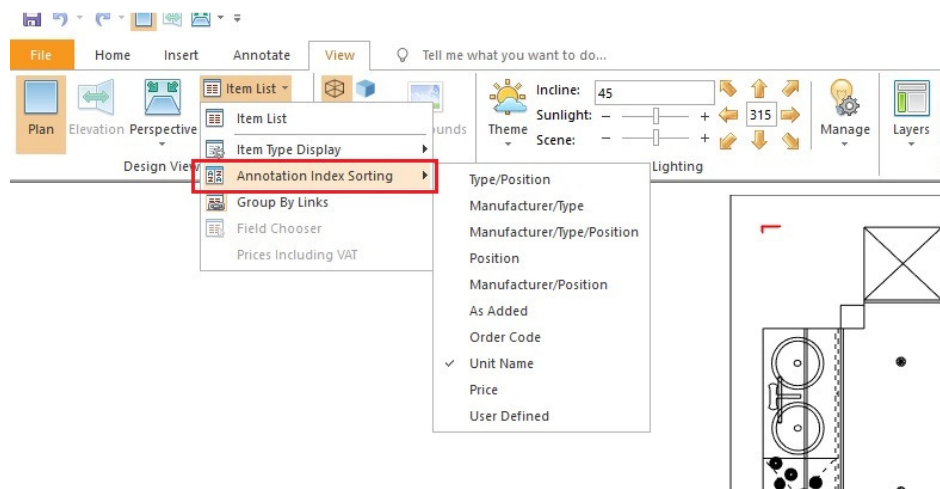
The default 'Annotation Index Sorting' (numeric) method can then be defined in the 'View Settings' section of Fusion's 'Options', under the 'Item List Defaults' heading:



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.

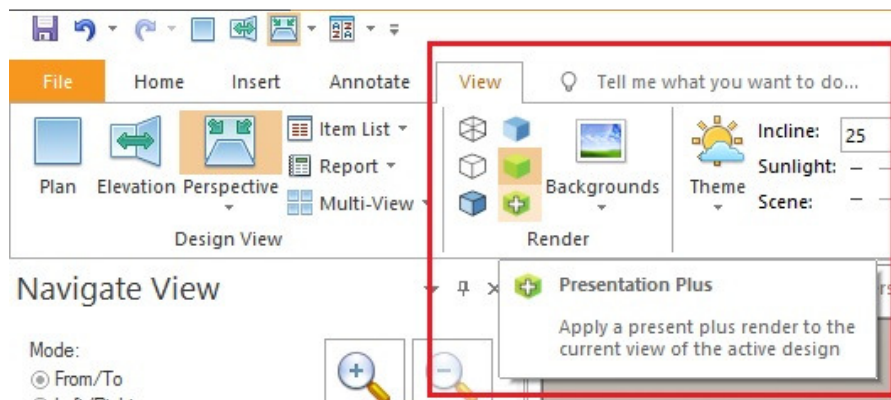
Viewing, Lighting & Rendering

New Rendering Solution (6.0)

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

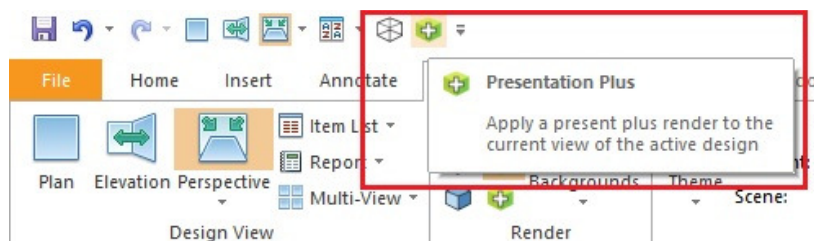
In terms of user interface, the old render gallery control has been completely removed and replaced by six dedicated buttons – one for each new render option, positioned at the top level of the 'View' ribbon.



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.

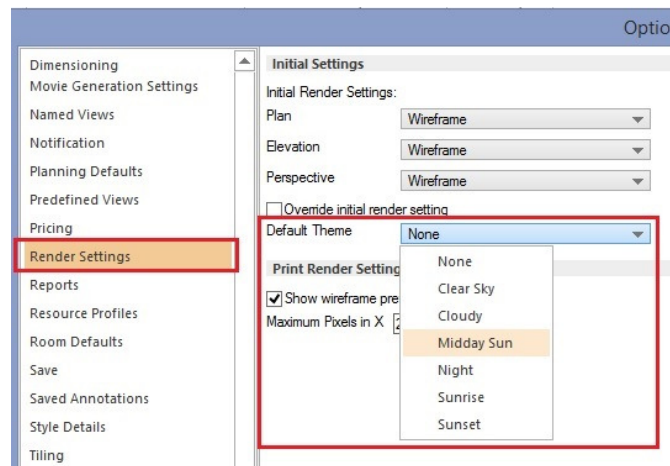


Design Conversion

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.

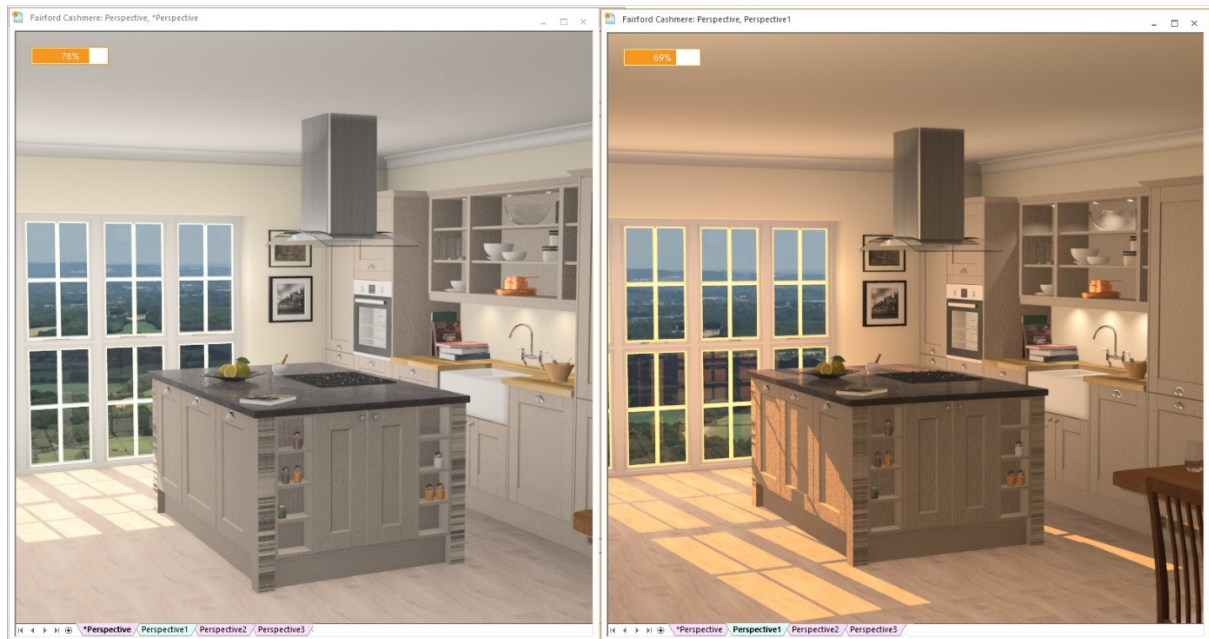
Background Rendering (6.0)

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:

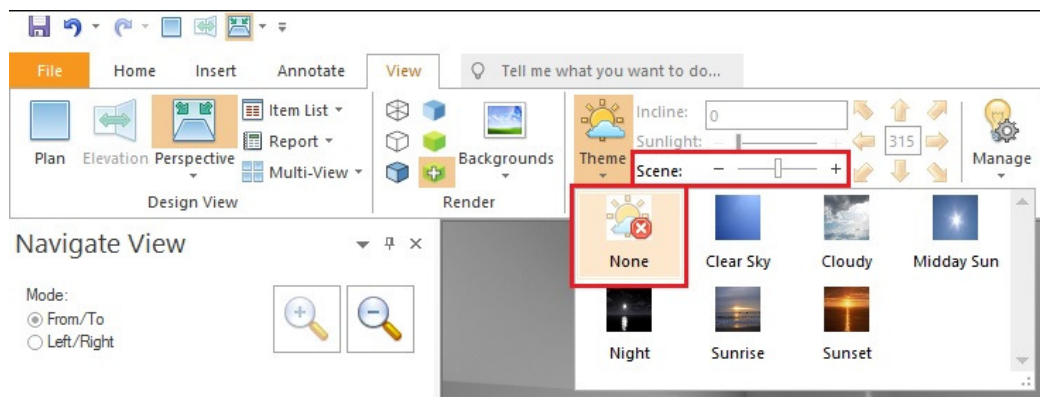


As a result of the increased responsiveness introduced by background rendering, combined with the general speed of the four planning renders, an additional benefit is that there is no longer a need for 2020 Fusion to provide a 'Planning Mode'; as such, this feature has now been retired in version 6 onwards.

Automated 'Lighting Rig' (6.0)

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 (6.0)

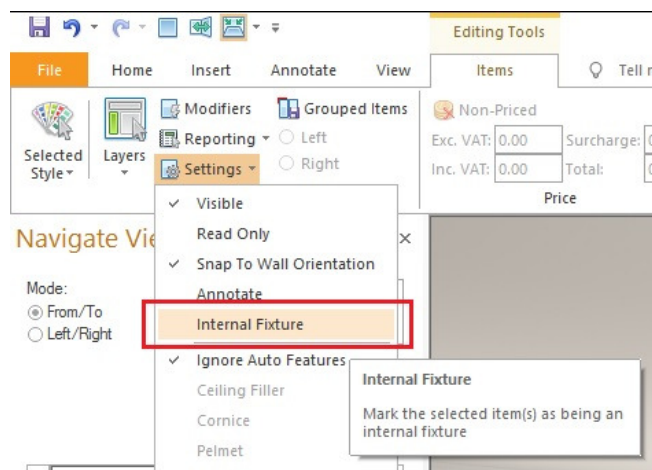
As part of Version 6's revamped rendering solution, changes were made to ensure that backgrounds were now only displayed through openings such as glass windows and doors. This now means that it is possible to present a fully rendered view from outside of the confines of the design area with 'hide walls'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



Internal/External Fixtures (6.0)

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 (6.0)

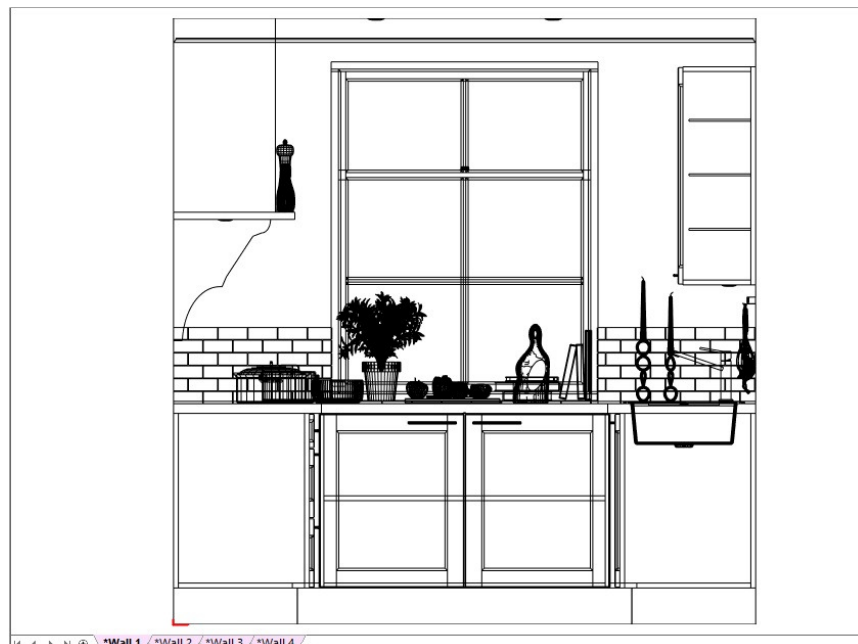
2020 Fusion's 'Named View' system has been completely reinvented to now offer designers a more user-friendly and consistent solution, with the old named view gallery controls having been removed.

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.

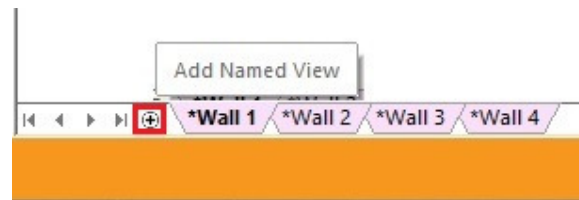
The main views will be generated with default dimensioning and annotation settings based upon those defined in the corresponding areas of 2020 Fusion's 'Options'.

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

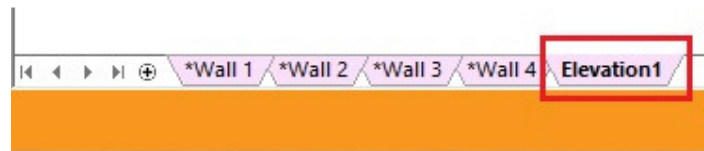
User-Defined Named Views

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:



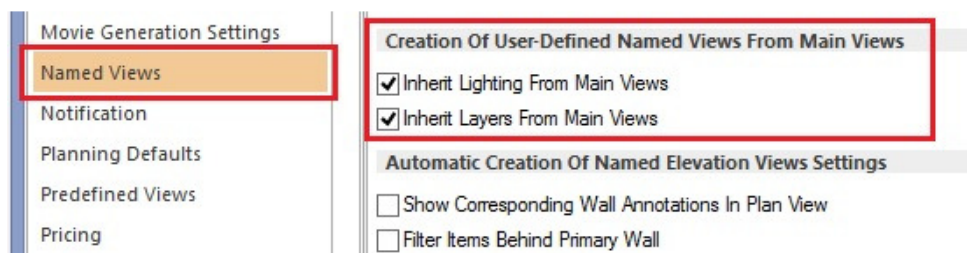
The newly created user-defined named view is then added to the series of tabs, after the main views.



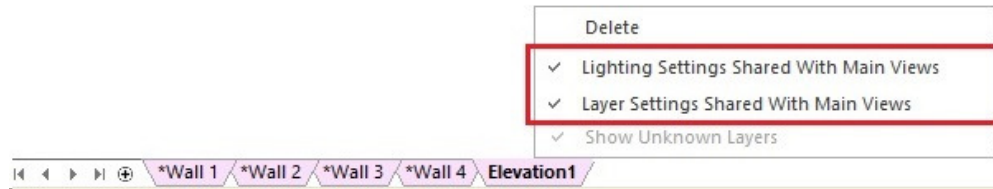
Note: user-defined named views can be differentiated from main views by the fact that they are not preceded by an asterisk.

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*.

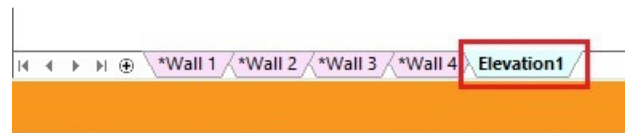
**Note: User-accessible preferences can be set to determine whether user-defined named views created from a main view will use independent layer and lighting settings at the point of creation; these are found in the 'Named Views' section of 2020 Fusion's 'Options':*



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:

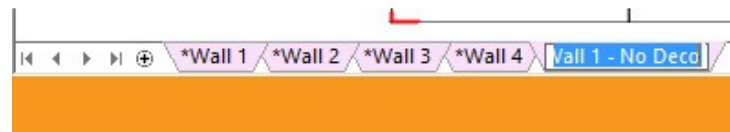


Once a user-defined named view no longer shares its lighting or layer settings with the main views then this will be indicated by displaying a different tab background colour (blue). Changes to lighting and layers can then be made independently, within this named view only, without affecting any of the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



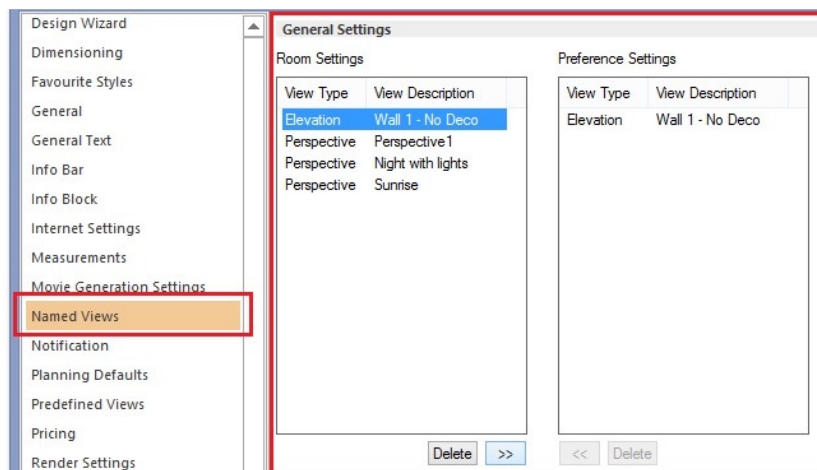
User-defined named view tabs can be renamed and reordered in the same way as is possible in MS-Excel. Double-clicking on a tab will allow the user to rename it and clicking and dragging will allow the user to reposition it.

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':

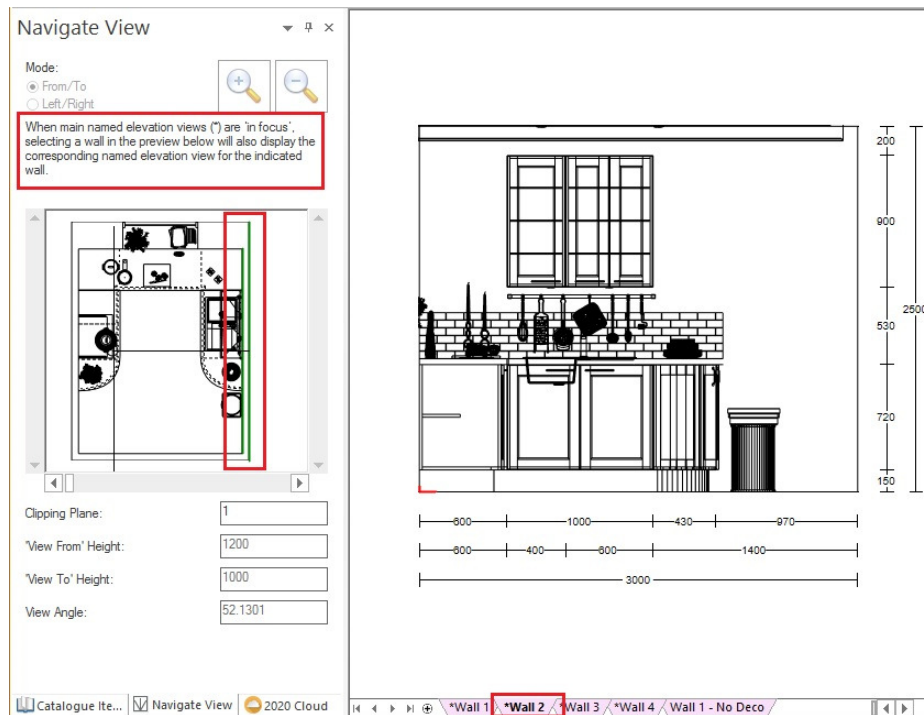


Note: If the transferred user-defined named view is subsequently updated, then the transfer will need to be repeated in order to ensure that the latest iteration of the named view is available across all designs.

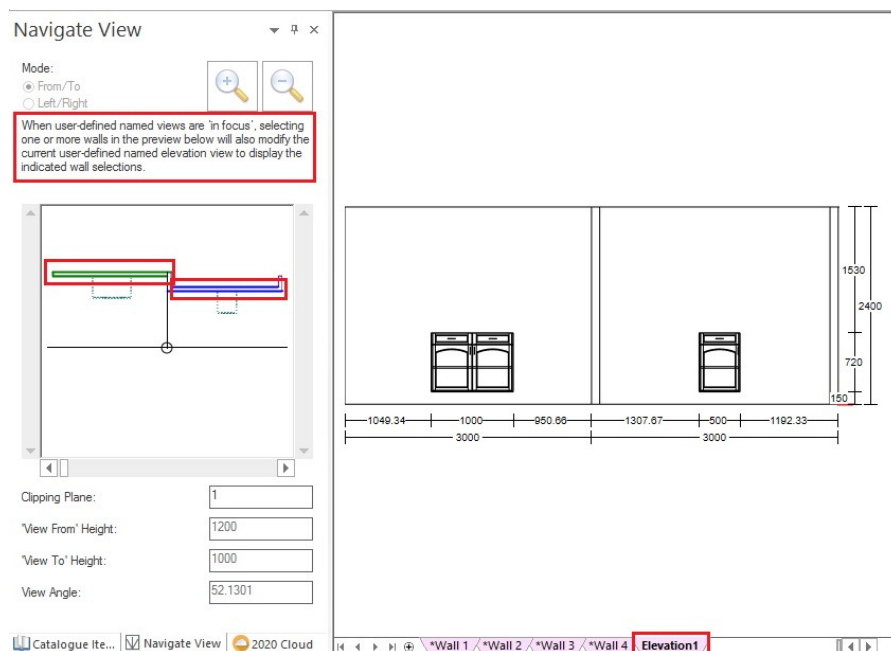
Elevation Named Views & The Navigate Palette 'Mini-Plan'

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.

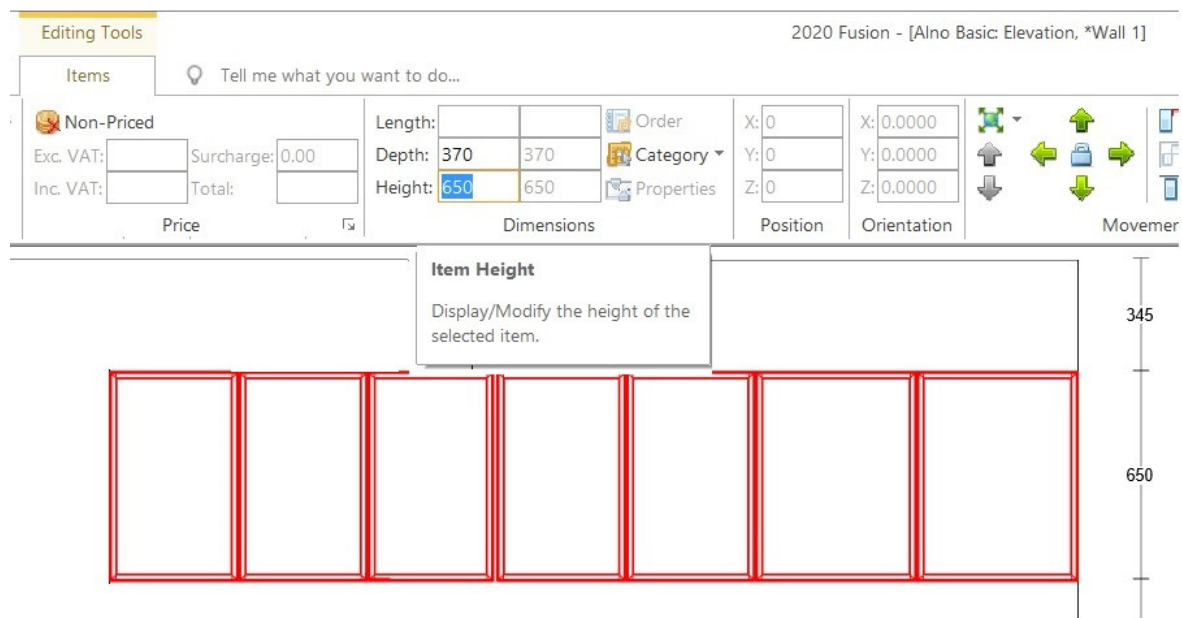
Design Creation

Items Tab: Ability to Modify Options/Fields for Multiple Selections (6.0)

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.

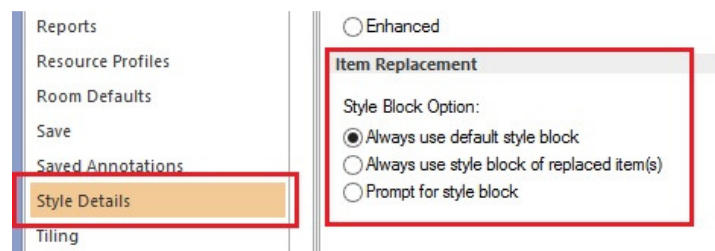
This enhanced functionality represents a major improvement in terms of usability and will eliminate the unnecessary repetition previously experienced when applying the same change to several items.

Style Options When Replacing Items Occupying an Additional Style Block (6.0)

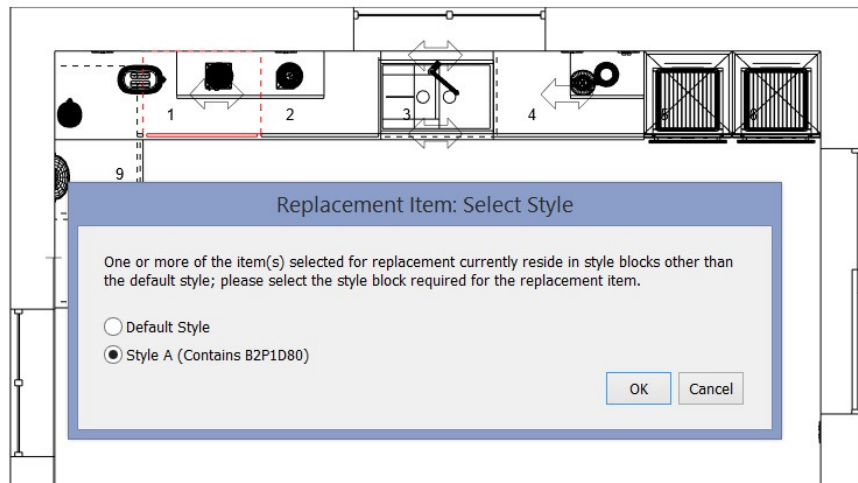
In 2020 Fusion, it is possible to independently change the style options of a given item so that they are different to that of the default style block. Doing so results in the creation of additional style blocks – i.e. Style Block A, Style Block B, Style Block C, etc.

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.

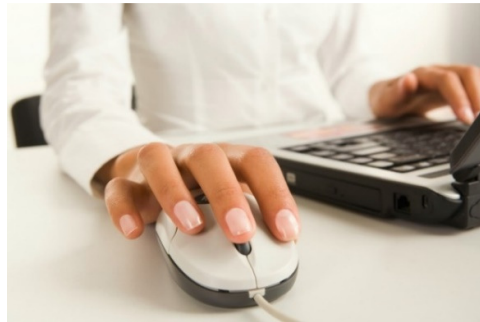


If the option to prompt is chosen, then the user will be presented with the following dialog and will be offered the relevant options based upon the selection(s) and replacements made.



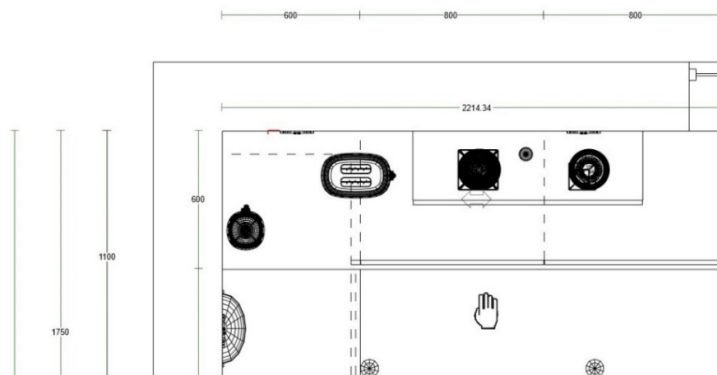
User Interface/User Experience

Zoom and Drag Control via Mouse Wheel (6.0)



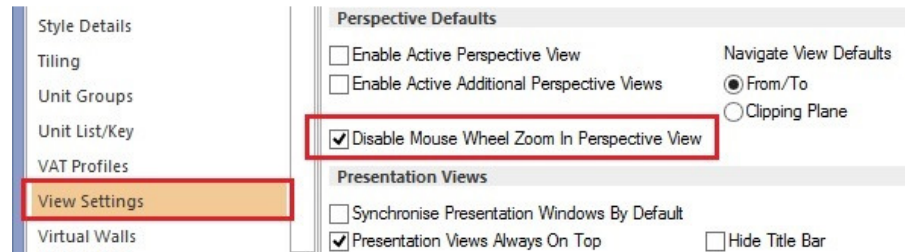
In addition to 2020 Fusion's existing controls, another means of zooming in or out has been added to the application. Moving the mouse wheel forwards in either plan or elevation views will cause the view to zoom in based upon the mouse-pointer position; moving the mouse wheel backwards will cause the 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.

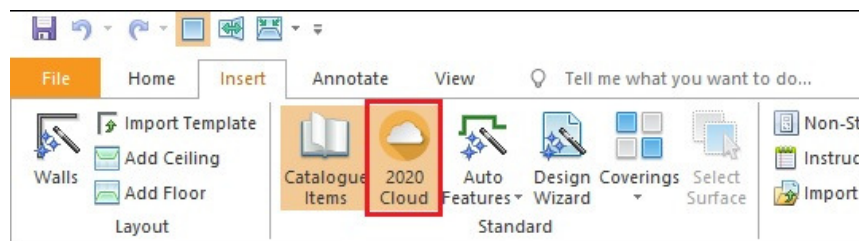
Owing to the possibility of inadvertently zooming in on a rendered perspective view, a user accessible preference has been added to give the user the option to disable the mouse-wheel zoom functionality in perspective. This preference can be found in the 'Perspective Defaults' section of the 'View Settings'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



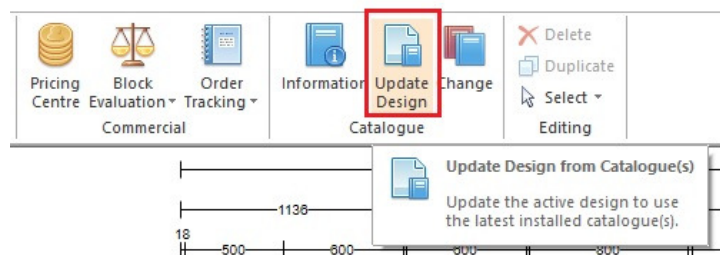
Repositioning/Consolidation of the 2020 Cloud Ribbon Icons (6.0)

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.



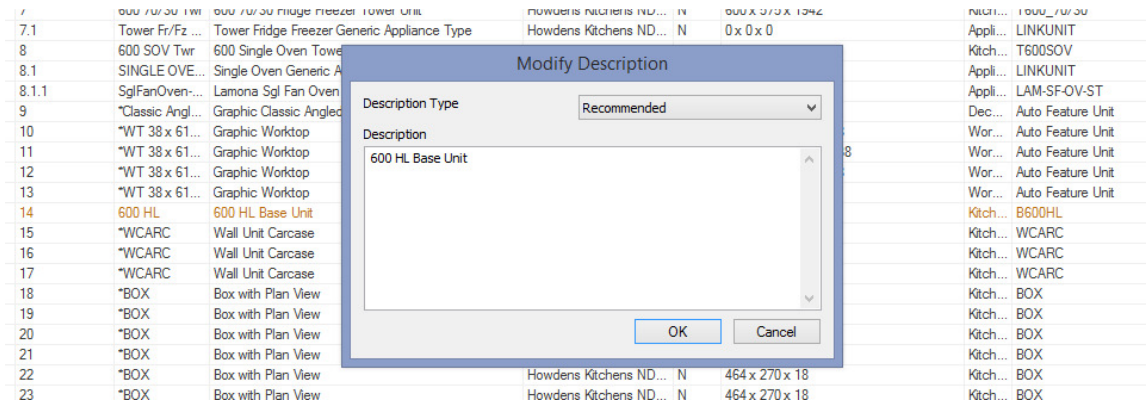
Preference to Open 'Modify Description' Dialog via Double-Click in Item List (6.0)

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.

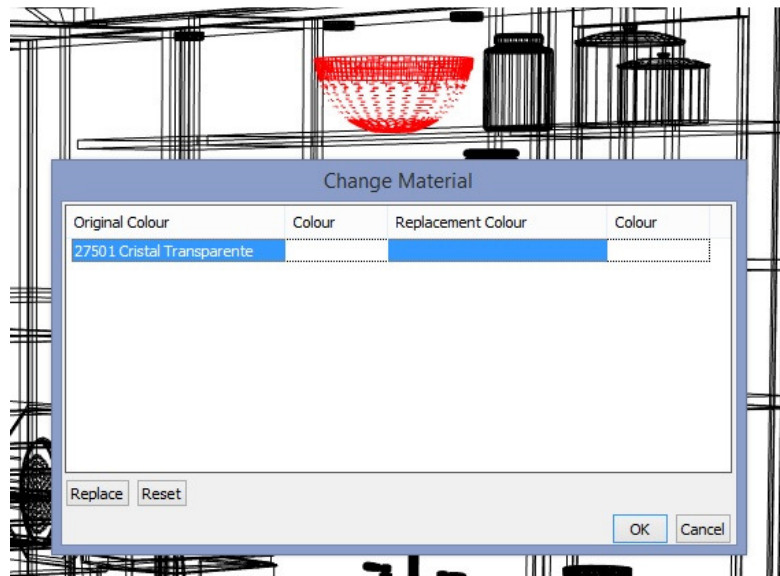
[ItemList]

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 (6.0)



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 (6.0)

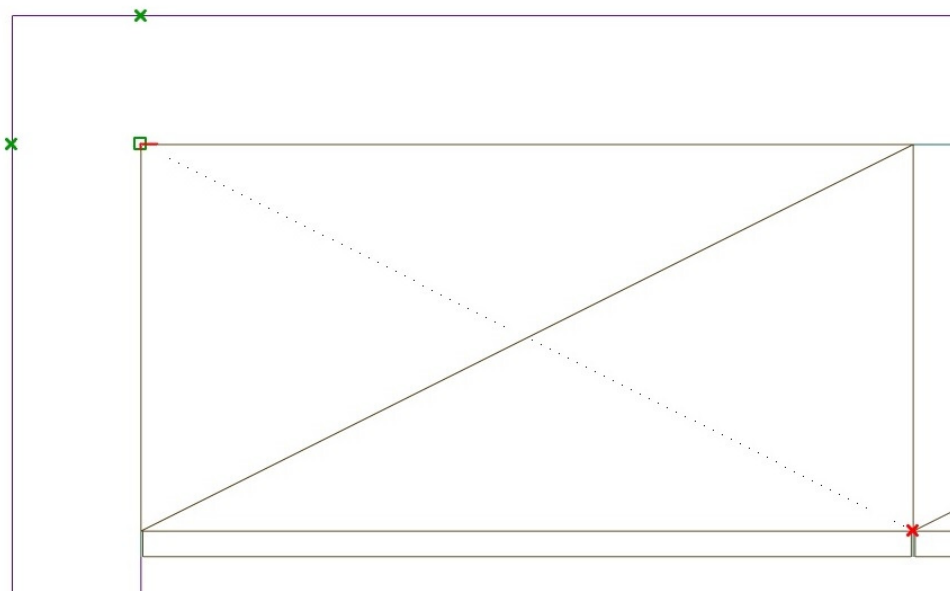
When a user is creating a design in 2020 Fusion, there are certain functions that rely on the use of 'hotspots' – i.e. specific areas or design items to which other items can precisely snap (attach) to. In previous versions, these snapping points were invisible and so it was not always clear to a designer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

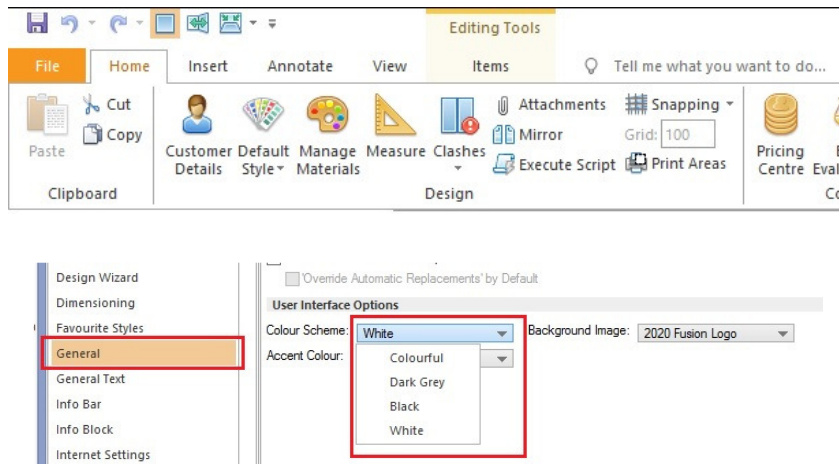
There are three types of snapping indicator:

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

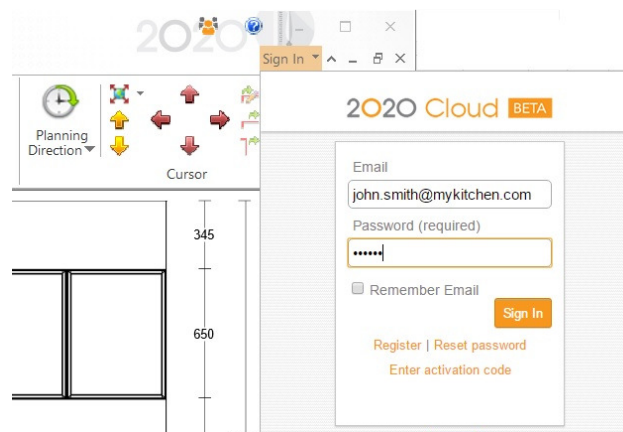


Microsoft Office 2016 User Interface (6.0)

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:



Miscellaneous

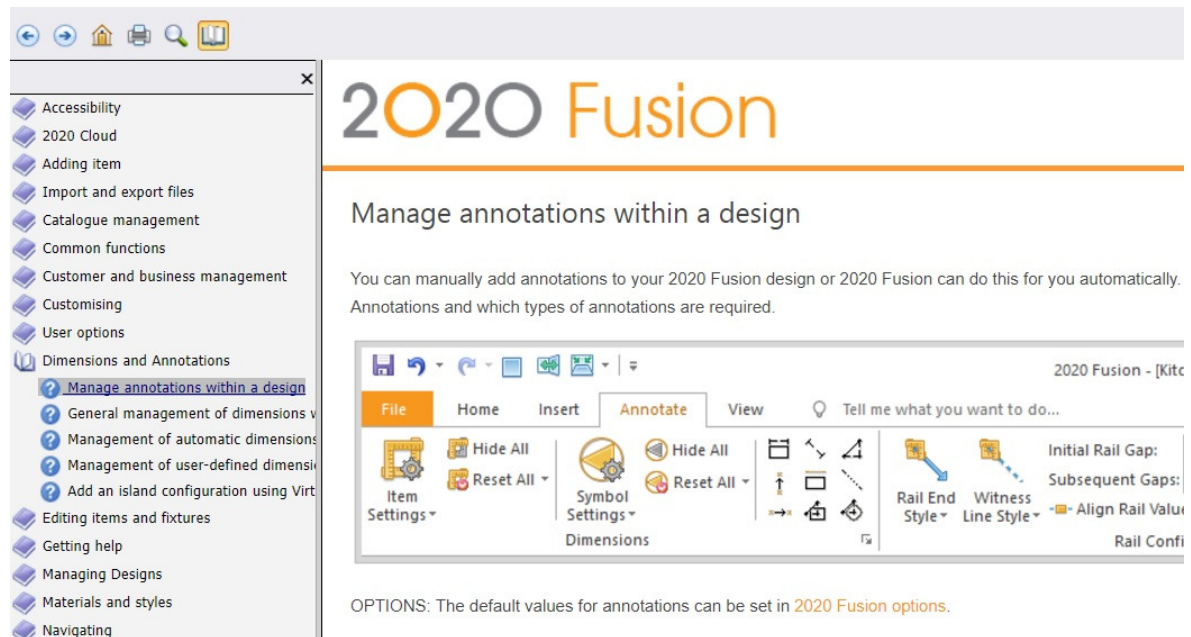
64-bit Only Application (6.0)

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.



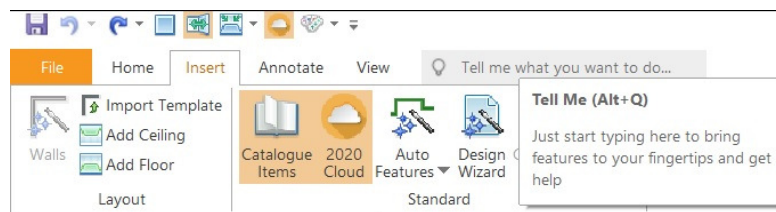
New Help System (6.0)

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'.

