

2020 Panel Builder User Guide



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About Panel Builder

The CAP Panel Builder technology is designed to construct and manage panel configurations. These configurations often include frames, stacking frames, and tiles. However, depending on the catalog in use, Panel Builder can also be used to create field cut panels of custom width, floor-to-ceiling configurations with optioned heights and other manufacturer-specific design needs.

Panel Builder allows designers to easily and accurately specify panels, space plan with those panels, and apply changes to some or all of the panels placed within a drawing. It does all of this in a part number independent environment. Panel Builder allows designers to space plan naturally, all the while maintaining an accurate Bill of Materials behind the scenes.

Panel Builder eliminates the need to navigate complex catalog hierarchies to find a desired base panel and (when needed) stacking panel. Based on user selections of panel properties, Panel Builder validates and constructs the required style numbers and options as panel configurations. You save finished configurations under a user-defined name in a custom catalog, much like a CAP Standard. These configurations then behave as one finished assembly rather than many individual elements.

Since all available widths of the stack configuration are automatically generated in the custom catalog, you can use these configurations to drag and drop stacked panels from the Explorer pane into a drawing. Or, use your stored configuration to replace or update any set of panel configurations already placed.

Note: Since Panel Builder is an application shared across shared across multiple manufacturer product lines, there will be some functionality that will not apply to every manufacturer.

Hints and procedures

As in other Windows applications, there are many ways to do specific tasks in 2020 Panel Builder. You can:

- ▶ Use the [menu bar](#) to select the command
- ▶ Click on an icon on the [toolbar](#)
- ▶ Right-click to access the context menu

Instead of showing different ways of performing the same task, procedures in this help file show you only one way so that you can quickly learn how to use the application.

Note: Make sure all Panel Builder toolbars are displayed for procedures directing you to click icons.

Using Help

Welcome to the 2020 CAP Panel Builder online help! The following section describes how to use options from the **Help** menu. Help is a way of quickly finding information or an explanation concerning an aspect of the 2020 CAP Panel Builder program.

See also:

- ▶ [What's new](#)
- ▶ [Online updates](#)
- ▶ [Diagnostics](#)
- ▶ [Software version \(About CAP Studio\)](#)

What's new

From the **Help** menu, click **What's New**. From this window you can:

- ▶ view announcements on 2020 Technologies commercial software
- ▶ read about and download manufacturer catalog updates
- ▶ view information about new commands, software fixes and known issues
- ▶ download software updates
- ▶ download PDF versions of the 2020 Technologies commercial software user guides
- ▶ find training courses for 2020 Technologies software
- ▶ view a list of upcoming industry events in which 2020 Technologies will participate
- ▶ obtain 2020 Technologies' contact information

Online updates

Software and manufacturer catalog updates are often posted to the [2020 Website](#) before they are available on DVD.

To access updates online:

1. From the **Help** menu select **www.2020spaces.com**.
2. Select the category you need more information on.

- ▶ **See also:** [What's new](#)

Diagnostics

The **Diagnostics** command from the **Help** menu is used by technical support to troubleshoot 2020 software.

Software version (About CAP Studio)

To verify your version number, choose **Help, About CAP Studio**.

Launch Panel Builder

From the **CAP Designer** toolbar, click the **Panel Builder** icon.

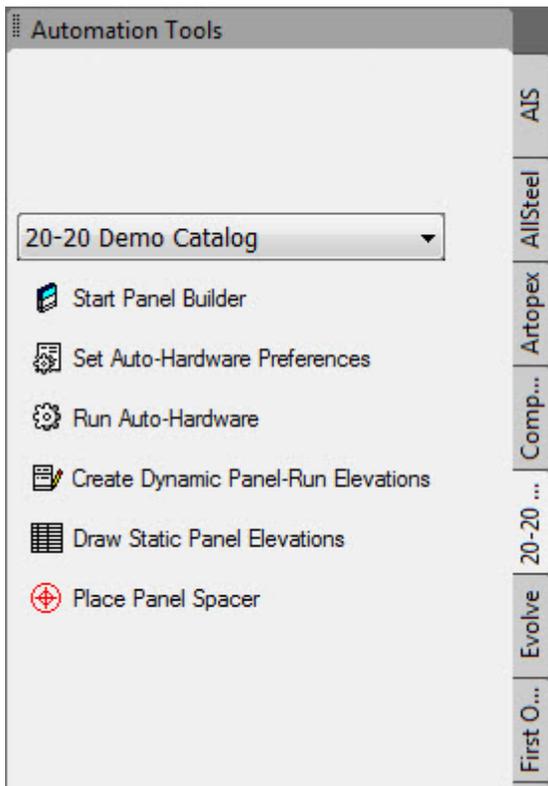


From the **CAP Designer Automation Center**

1. Click the **Automation Center** icon.



2. Click the desired manufacturer's tab on the side of the **Automation Tools** pane.



3. Select the product line you want work with with from the dropdown list.
4. Click **Start Panel Builder**.

See:

[Panel Builder interface](#)

[Create a panel configuration](#)

Note: While Panel Builder is usually run from CAP Designer, it is a standalone application and does not require any other software to be running.

Panel Builder interface

Upon first launch, Panel Builder appears as shown above and consists of:

- ▶ [Content pane](#) - provides access to the components that can be placed in the panel configuration
- ▶ [Properties pane](#) - allows changes to the characteristics of each component
- ▶ [Panel Configuration pane](#) - area where you build the panel configuration
- ▶ [Menu bar](#) - lists the tasks you can do in 2020 CAP Panel Builder
- ▶ [Toolbars](#) - allows you to perform various operations quickly
- ▶ Caption bar - displays the total height of the stack assembly
- ▶ Status bar - shows a description when you hover the mouse pointer over a toolbar icon or a menu command

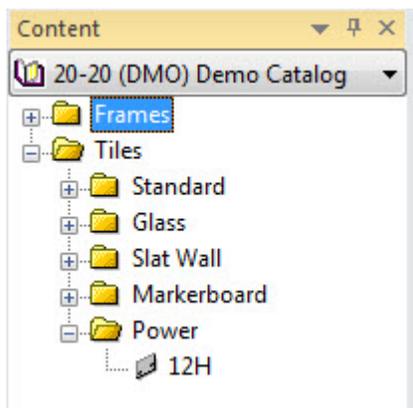
The Content and Properties panes are [moveable and can be docked](#) in different locations. You can also [auto-hide](#) them.

Content pane

The Content Pane is where you select elements to build a panel configuration. Element is the term for any item found in the Content pane. Depending on the catalog, elements include base panels, stacking panels, tiles, doors, base raceway covers and other parts needed to completely specify a Panel Builder configuration.

Much of the layout of the Content Pane depends on the nature of the catalog; a catalog that does not have doors does not have a folder for doors. A Panel Builder catalog can have as many or as few folders and folder levels as the manufacturer decides.

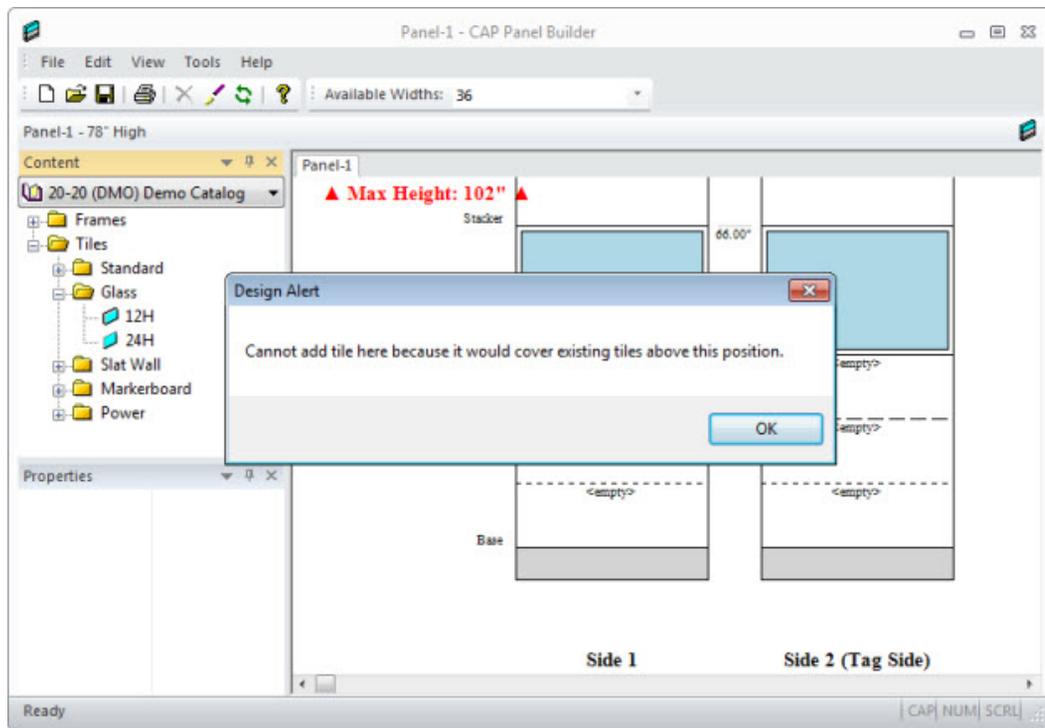
The Content Pane in Panel Builder is separate from the Content tab in CAP Explorer. It is designed to present the available elements in a logical and intuitive manner. At the bottom level of the navigation path of the Content Pane are the actual class instances (elements) that can be placed into the Panel Configuration Pane.



Panel configuration pane

Once you select an element in the Content Pane, you place (drag and drop) it into the Panel Configuration Pane. If the class instance is a panel, that panel is placed. If it is a tile, it is placed at the location on the panel it is dropped on.

For each Panel Builder catalog, rules exist to prevent illegal configurations. In the example below, a base panel has been placed and the user is attempting to place an illegal stacking panel above it. Panel Builder issues a Design Alert (highlighted in red below) to prevent the illegal configuration.



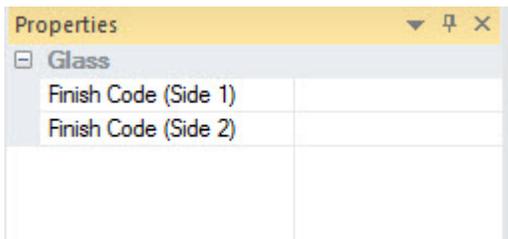
The Configuration Pane can have underlying rules that prevent almost any illegal configuration:

- ▶ Rules that control the location, type, or number of tiles allowed on panel.
- ▶ Rules to prevent certain tiles in certain locations based on the type of stacking panel in the configuration.
- ▶ Rules that control the number or type of stacking frames.

In addition to the catalog specific rules exemplified above, the Configuration Pane has some fundamental rules built into its user interface. Rules like "tiles cannot overlap or extend beyond the top of the frame" and "stackers cannot be placed inside base frames" are built-in.

Properties pane

Once you place an item into the Panel Configuration pane, all of its available properties are displayed in the Properties Pane.



Notice that you need to know nothing about the underlying structure of the electronic catalog. If changing a panel changes its part number, Panel Builder does it automatically behind the scenes. If the change requires a change to the options of the panel, Panel Builder handles that as well. In either case, it is transparent; you simply select the property you wish to apply, without the need for searching through the table of contents for a different part or diving into the details of option trails.

In addition to being able to change part numbers and options, a property can also add additional parts to the configuration.

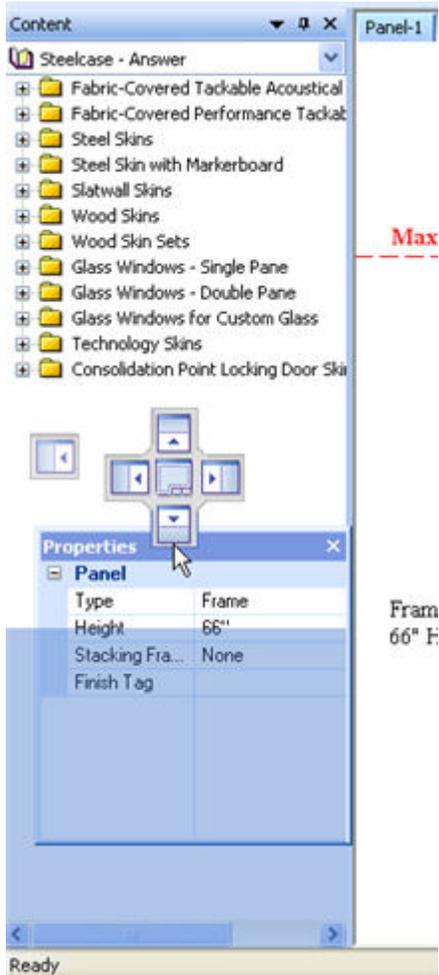
Properties can be dependent on other property choices. For example, if a panel only has three Raceway Cover options when it is Non-Powered but has nine when it is powered, Panel Builder will correctly support this.

Move or dock the Content or Properties pane

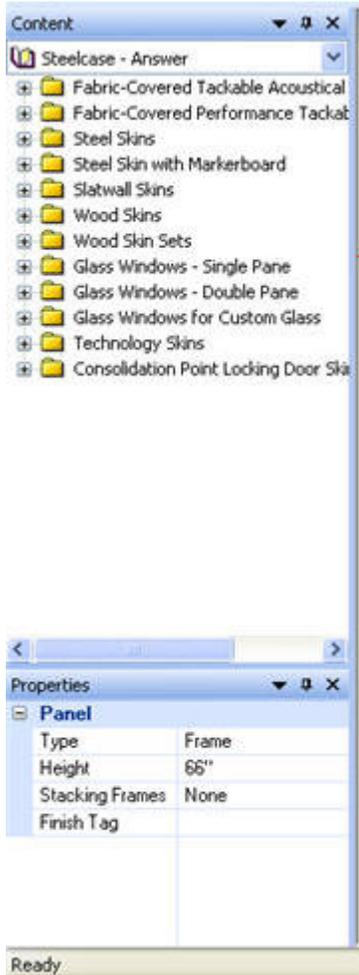
To customize the Panel Builder screen, you can drag the **Content** or **Properties** pane to various locations.

Example - move the Properties pane:

1. Hold down the left mouse button while the cursor is positioned over the **Properties** pane's title bar.
2. Drag the **Properties** pane so that it is hovering over the **Content** pane area, then hover over the docking arrows that appear as shown below:



3. As displayed above, hovering over the arrows displays a shaded area where the pane will dock. Release the mouse button when the desired area is shaded to re-dock the pane at the new location:



See also: [Auto-hide the Content or Properties pane](#)

Auto-hide the Content or Properties pane

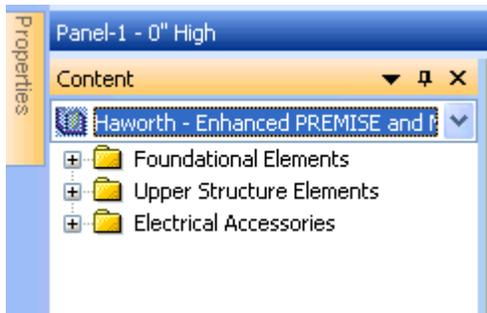
Another way to customize the Panel Builder screen is to auto-hide the **Content** or **Properties** pane so that is only displayed when you need to use it.

Example- hide the Properties pane:

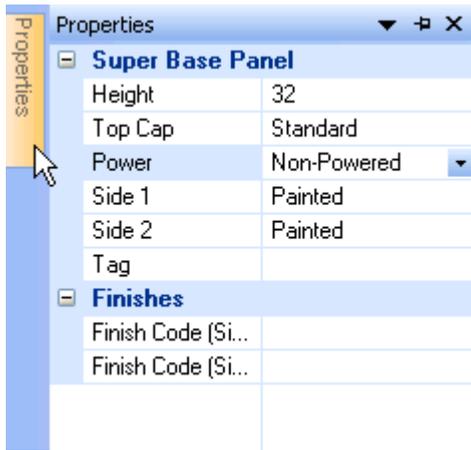
1. Click the **Auto Hide** icon on the toolbar.



Notice that the **Properties** pane is hidden, but you can still see its title bar beside the **Content** pane:



2. If you want to access the **Properties** pane simply hover over its title bar to display it.



Menu bar

Located on top of the 2020 CAP Panel Builder screen are menu names . They list the tasks you can do in 2020 CAP Panel Builder.



Click a menu to open it.

Underlined letters in menu and command names indicate they can be accessed through a shortcut.

For example, to quickly open the **File** menu:

1. Press ALT+F to open the **File** menu.
2. Type in a letter corresponding to the underlined letter of the command you need. For instance, type the letter “S” to save.

Some commands have even quicker shortcuts. Instead of opening menus, you can directly access a command by pressing CTRL plus a letter. For example, CTRL + letter “O” displays the **Open** dialog.

To quickly find the help topics and shortcuts that correspond to each menu item, see the following under [Command reference](#):

- ▶ [File menu](#)
- ▶ [Edit menu](#)
- ▶ [View menu](#)
- ▶ [Tools menu](#)
- ▶ [Help menu](#)

Toolbars

As in standard Windows applications, toolbars in CAP Panel Builder allow you to perform frequent operations quickly with icons (images representing an action or a command).

You can easily customize toolbars. See the topics below for more information:

- ▶ [Show or hide a toolbar](#)
- ▶ [Move a toolbar](#)
- ▶ [Add and remove buttons](#)

The following toolbars are available in Panel Builder, each representing a category of commands:

- ▶ [Standard toolbar](#)
- ▶ [Panel Width toolbar](#)

Show or hide a toolbar

1. From the **View** menu, select **Toolbars**.
2. Select the toolbar name to toggle the toolbar on and off.

If it is off (no next to the name), click it and the toolbar will appear on your screen (a will also appear next to its name). Selecting it again will turn it off.

Move a toolbar

A toolbar can be docked or floating. It is docked when no title bar appears and dots area available on the left side.

Example of a docked toolbar:



Example of a floating toolbar:



- ▶ To undock a toolbar and leave it floating, click-hold the mouse button on the dots on the left side of the toolbar , move the toolbar and then release the mouse button.
- ▶ To dock a floating toolbar, click- hold the mouse button on the title bar, move the toolbar to the desired spot and then release the mouse button.
- ▶ To remove a floating toolbar from the screen, click the x in the title bar; to remove a docked one, use **View, Toolbars**.

Add and remove buttons

Customizing a toolbar consists of adding buttons to a built-in toolbar.

1. Click on **View, Toolbars, Customize**.
2. Click the **Commands** tab in the **Customize** dialog.
3. To **remove** a button from a toolbar, click the button then drop it anywhere off the toolbar.

To **add** a button to a toolbar, under **Categories**, highlight the toolbar you want to choose icons from. Click on a button then drag it to the desired toolbar.

4. Click **Close** when done adding/removing buttons.

To reset a modified built-in toolbar:

If you added or removed buttons to a built-in toolbar, here is how you can retrieve the original toolbar:

1. Choose **View, Toolbars, Customize**.
2. Click the **Toolbars** tab.
3. Click the modified built-in toolbar.
4. Click **Reset**.
5. Click **Close**.

Standard toolbar



Icon	Name	Shortcut	Function
	New	Ctrl+N	Create a new panel configuration
	Open	Ctrl+O	Open a panel configuration
	Save	Ctrl+S	Save the current panel configuration
	Print	Ctrl+P	Print the current panel configuration
	Delete	Delete	Delete the selected item from the panel configuration
	Apply Finish Code		Apply a finish code to the panel configuration

Icon	Name	Shorcut	Function
	Refresh		Refresh the panel configuration
	About		Displays the software version

Panel Width toolbar

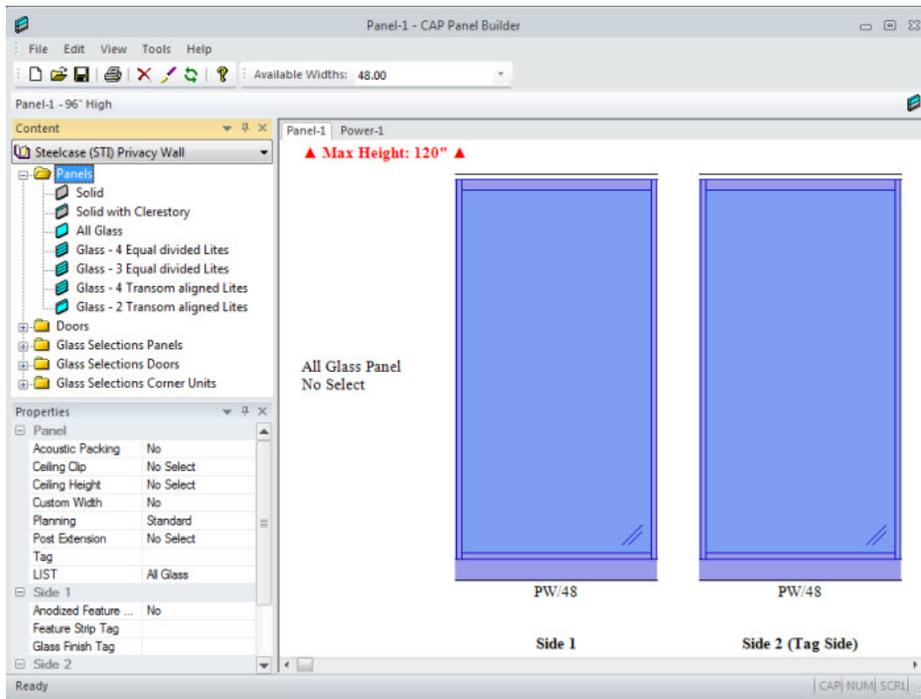


See [View available widths](#).

Create a panel configuration

The procedure for creating configurations varies between manufacturers and even between catalogs for some manufacturers. The basic design flow remains the same.

1. [Launch Panel Builder](#).
2. You can [dock](#) the **Properties** pane under the **Content** pane or [auto-hide it](#).
3. If the appropriate catalog is not yet selected, click on the drop-down arrow in the **Content** pane.
4. Select the product from the **Content** pane and drag it to the into the configuration window on the right, where it snaps into place.



First, place the base frame, then any stacking frames, and finally apply any tiles. Note that nomenclature varies between manufacturers. This step might require that you place panels and then add elements to those panels. Panel Builder follows each manufacturer’s nomenclature.

If you are configuring Knoll Dividends Horizon open position panel frames, you will be prompted to select structural options. For more information about 2020 Options, see 2020 Options help.

As you put your panel configuration together, keep in mind that Panel Builder has many fundamental and catalog-specific rules set in place. Go to [Configuration Design Rules](#) for more information about this.

The caption bar at the top displays the total height of the stack assembly.



If you want to remove a panel from the configuration, click on it then press .

5. You can now [set the properties/finishes](#) (such as top cap type, power features, materials, etc.) of each element in the configuration.

Note: When building a configuration in Panel Builder, if the tiles on one side are the same as the other, you can use the **Copy Side** buttons  to quickly duplicate the tiling. After copying tiles be sure to update the Finish Codes as required.

Attention: The copy side commands bypass the rules for tile placement. Use it only when you are certain that the configuration can support the same tiles on both sides.

Set Panel or Frame Properties and Tile Finishes

Once you have placed the elements (frame and tiles) in the Panel Configuration Pane, you may start assigning specific properties.

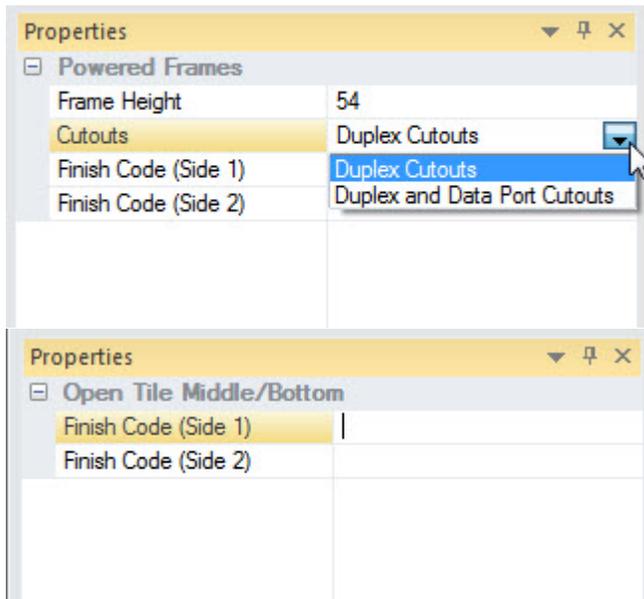
1. Select the frame or tile in the Panel Configuration Pane.

Note: If the panel configuration already has both panel frames and tiles in it, you would click one time to set the properties for the tile or else click a second time to select the properties for the frame instead.

The manufacturer catalog you are working with determines the available Properties.

For example, two manufacturers may offer different widths of power and non power frames, and different types of finish fabrics for tiles.

2. Click in the field to the right of the property name to make a different selection for the selected frame or tile.



The new selection is displayed in the property field and the Panel Configuration changes as well.

Note: Changing properties can change the part number of the frame or tile, or it may change its options and possibly add parts to the configuration. You simply have to select the properties. Panel Builder takes care of making the correct underlying changes.

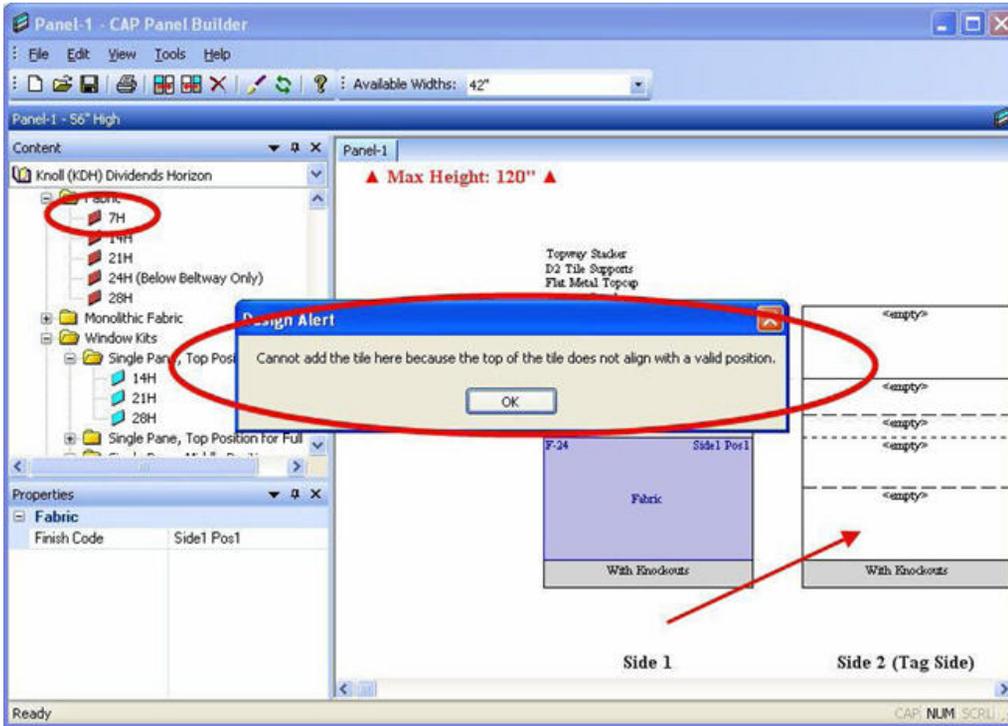
Design rules

2020 and the manufacturers have added many rules to prevent many illegal configurations. While these rules are extensive and well-tested, they are not a substitute for product knowledge.

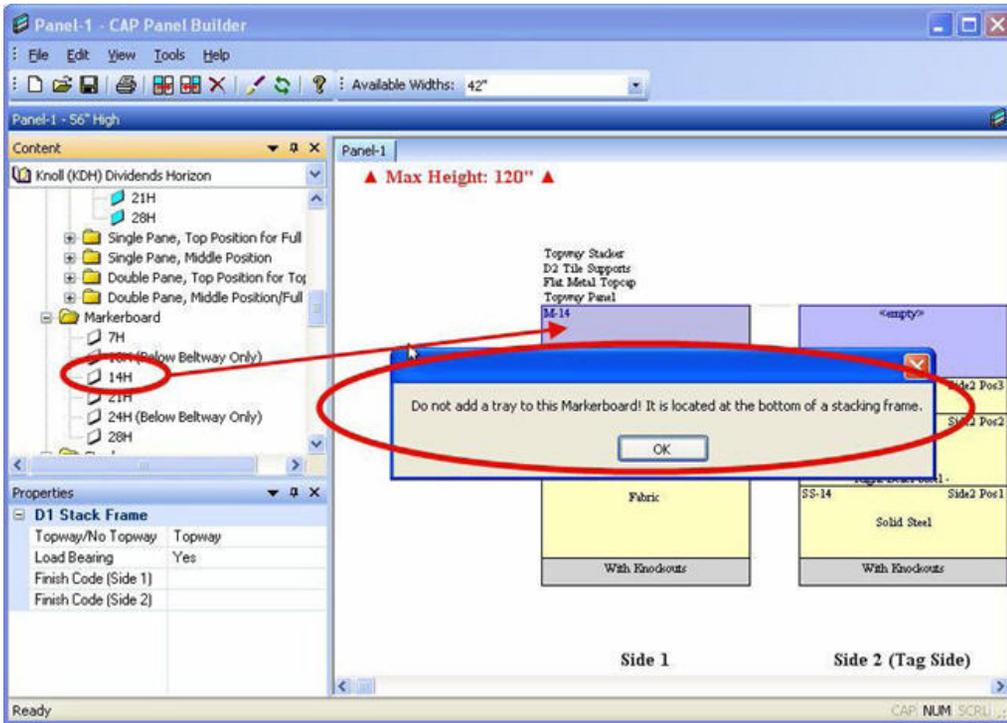
Ultimately the designer is responsible for building legal configurations.

Both fundamental and catalog-specific construction rules are enforced (such as no stacking on top of 10" element, total stack height restriction, etc.). If, for example, you place an element that exceeds that maximum panel configuration height, you will see an Alert dialog appear. If you do not wish to see this type of dialog, you can disable it through the **View** menu, **Design Alerts**.

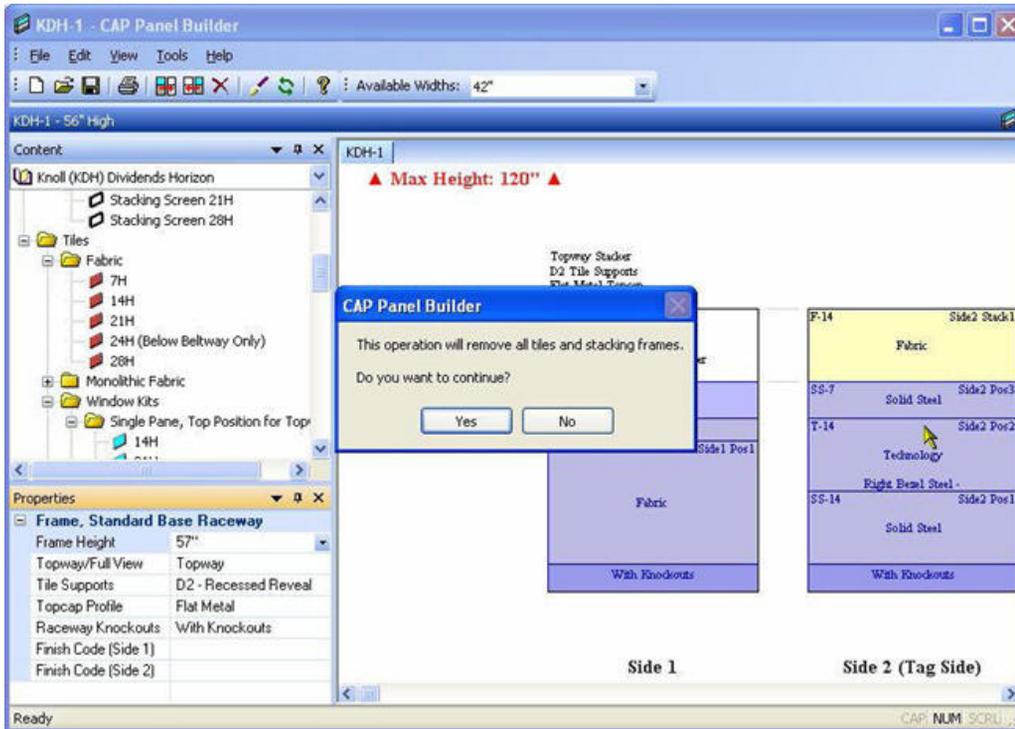
A fundamental Panel Builder rule is that tile elements must begin and end at tile seams. If a 7" high tile is placed at the bottom of Side 2, a Design Alert appears. This is because the base frame is defined with a 14" high tile seam. So a 14" high tile can be placed at the base, or as was done with the fabric tile on Side 1, another tile that aligns with another higher tile seam.



In addition to Design Alerts, Panel Builder sometimes displays a warning message when an element is placed. In the example below, a Markerboard tile has been added to the Side 1 stacking frame. This is a legal operation; however, since adding a tray to the markerboard tile would collide with the stacking seam, a warning message is displayed. Ignoring such messages will result in invalid configurations.



Some property changes reset the entire configuration. In the example below, changing the height of the base frame causes all the tiles and stacking frames to be removed. This assures that all element placement rules are run.



Apply finish codes to a panel configuration

Like all elements, when you select a tile in the Layout Pane, the tile's properties display in the Properties Pane. One of the properties displayed is called a finish code.

All elements have the Finish Code property. This is a free-form field into which you can enter any text. You can use the finish code to uniquely identify the selected element.

By default, the finish code maps to the Alias 1 field in 2020 Worksheet. If you would like this property to appear in a different Worksheet column, go to the **Tools** menu and select **Options**.

There are two ways to apply finish codes: from the Properties pane and from the [Apply Finish code dialog](#).

From the Properties pane:

1. Click on an element on the configuration side to which you would like to assign a finish code in the Panel Configuration window.

If you have a panel configuration in the Panel Configuration Pane that already has both panel frames and tiles in it, you would click one time to set the finish code for the tile or click a second time to select the finish code for the frame.

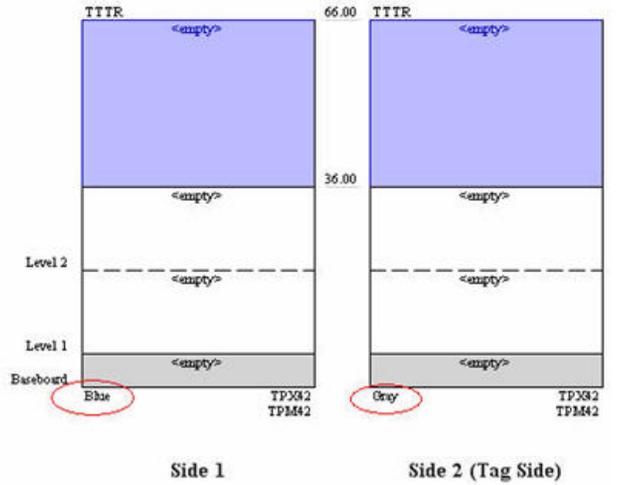
2. Place your cursor in the corresponding side's Finish Code field in the Properties Pane and type the desired finish code.

You can name your finish codes in whatever way will help you recognize how you want to specify that panel configuration's finish once you bring the configuration over into a Worksheet file.

The finish code is displayed on that side of the configuration over in the Panel Configuration Pane.

Properties	
Add-on Module	
Frame Height	30"
Finish Code (Side 1)	Blue
Finish Code (Side 2)	Gray

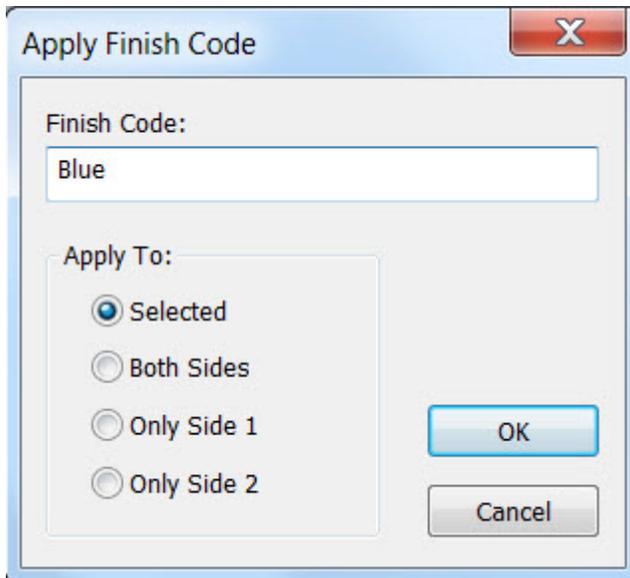
Max Height: 81"



From the Apply Finish code dialog:

To quickly apply a finish code to the whole panel configuration:

1. Click  on the [Standard toolbar](#).
2. Type in the finish code.



3. Under **Apply To**, choose whether to apply the finish code to the selected panel only, to both sides of the panel configuration, to only side 1 or to only side 2.
4. Click **OK**.

Note: The finish code will be saved in the [Property](#) fields once you [save the panel configuration](#).

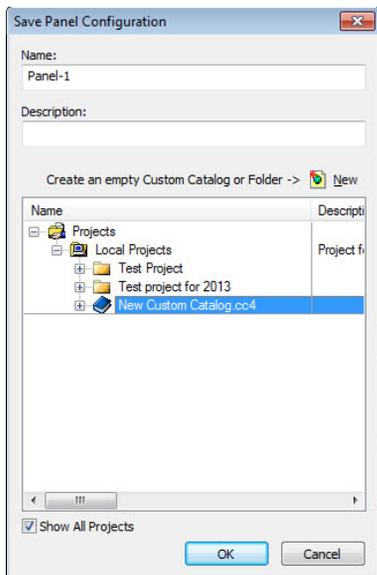
Save the configuration

Once the configuration is complete, you need to save it under a user-defined name and description in a Custom Catalog, much like a CAP Standard. The application creates all valid widths under that configuration name. It also performs cross-checks to ensure that the panel configuration is complete, and all style numbers are valid and available in the current electronic catalog.

1. From the **File** menu select **Save**.

If you would like to save your configuration to a custom catalog found in the network location, check **Show All Projects**.

2. Select an existing Custom Catalog (.cc4 extension) or create a new one by clicking **New**.



3. Change the **Panel name** for the configuration.

Note: Since the name appears as a tag on each occurrence of the panel configuration, we recommend entering a short name. For details, use the Description field which will appear in the Part Description column in Worksheet. You should also use a simple naming convention including the product line abbreviation and the number of the panel configuration for that product line within that particular custom catalog, such as TST Panel 1 or TOS Panel 2.

We do not suggest including the height of the panel as part of the configuration name, since you can change the height of the panel later on. Similarly, a name that describes the tiling will limit later editing of the configuration.

4. Enter a **Description**, if you wish, that will appear in the Parts Description column in Worksheet. You can then edit configurations descriptions in Worksheets, but you should do so in Panel Builder for future insertions of a configuration in Worksheet.
5. Click **OK**.

Panel Builder automatically creates all valid widths of the panel configuration. When this process is complete, you will see the **Save Panel Configuration** window open.

6. Click **OK** to close the **Save Panel Configuration** window.

You can make this window close automatically by checking **Automatically close when finished**.

To add this saved configuration to a drawing, see [Add a panel configuration to the drawing](#).

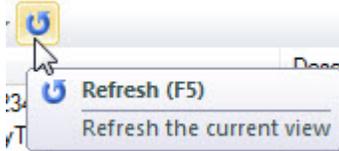
Warning: Maintaining a good one-to-one catalog/drawing relationship is important. Keep this in mind as you save your configurations. Configurations in custom catalogs and their counterparts that have been inserted into drawings are forever linked. When you change a configuration and save it (to its custom catalog), as soon as a drawing with that configuration is opened and updated, all occurrences of that configuration are updated. If you use a configuration in more than one drawing, this will lead to undesired results.

The best practice is to establish a one-to-one relationship between a project and the custom catalog which contains its Panel Builder configurations. If you wish to reuse a configuration in a different project, open the configuration in Panel Builder and use the **Save As** command to save it into another custom catalog. This way, changing the configuration in one drawing will not impact it in the other.

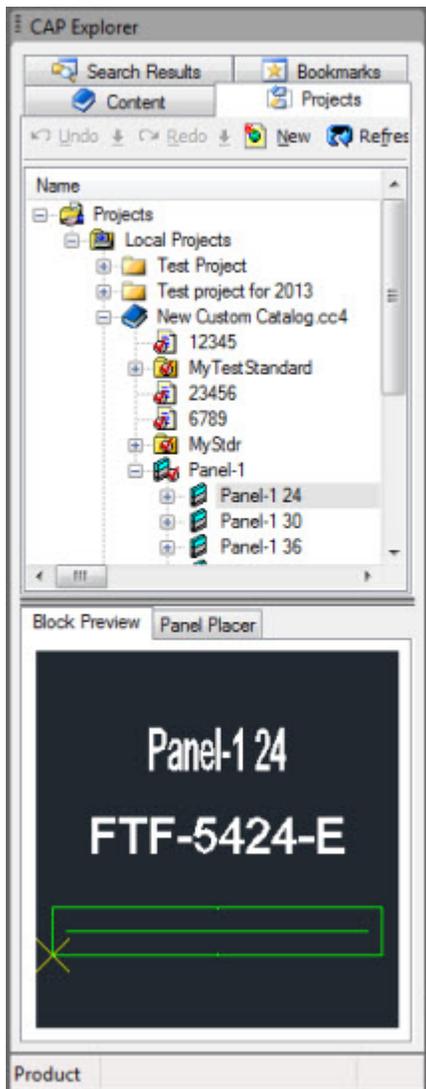
Since a one-to-one relationship should exist between the drawing and the custom catalog, an additional best practice is to keep the drawing and the custom catalog in the same folder.

Add a panel configuration to a drawing

- ▶ For each valid width of a stack assembly, the width is appended to the master configuration name.
 - ▶ The Master Configuration represents all valid widths.
 - ▶ The individual width configurations represent the actual elements which make up that particular width assembly.
1. Open or return to your drawing.
 2. If you just saved a configuration in Panel Builder, it may not be listed in the Custom Catalog until you click the **Refresh** icon.



3. From the **Projects** tab of the Explorer pane, select the size you want to use.



You can expand a width-specific configuration to see the components that are within the configuration without opening Panel Builder.

4. Snap panel structures together using Node snapping points.

Warning: As for all CAP Parts, do NOT use AutoCAD Mirror on Panel Builder configurations. Do NOT explode Panel Builder configurations.

Edit a panel configuration

1. If you are in Panel Builder, click  on the [Standard toolbar](#), select the desired panel configuration, and then click **OK**.

If you are in CAP Designer, select a panel configuration in the drawing and then click  in the **CAP Designer** toolbar.

2. Change the [panel, frame or tiles properties](#) as required.
3. Select **File, Save**. This will update the Custom Catalog items.

Note: To globally update the drawing, you **must** launch Panel Builder from CAP Designer. If you launched Panel Builder independently of CAP Designer, use **Update Panel Configurations** from the **CAP Designer, CAP Panel Builder** menu to update all panel configurations in the drawing. For details see [Update panel configurations](#).

If an edited configuration is used in other drawings, you must open each of those drawings and manually update the configurations.

Create a configuration from an existing one

Use the **Save As** command to build new configurations out of an existing one. It works like **Save**, but allows a new configuration to be created without altering the original version. You can use a configuration as a template to quickly construct a similar but different configuration.

1. Select a panel configuration in the drawing.
2. Click  on the **CAP Designer** toolbar. Panel Builder opens the selected configuration.
3. Edit/change the configuration for [frames or tiles](#).
4. From the **File** menu select **Save As**.
5. [Save the panel configuration](#) in a Custom Catalog with a new configuration name.

Note: **Save As** constructs a new panel configuration in a Custom Catalog, which can then be used in CAP Designer. **Save** not only saves a configuration, but also automatically updates all occurrences of that named configuration in the current drawing from which Panel Builder was launched.

If you want to create a new empty configuration, simply click  on the **Standard** toolbar.

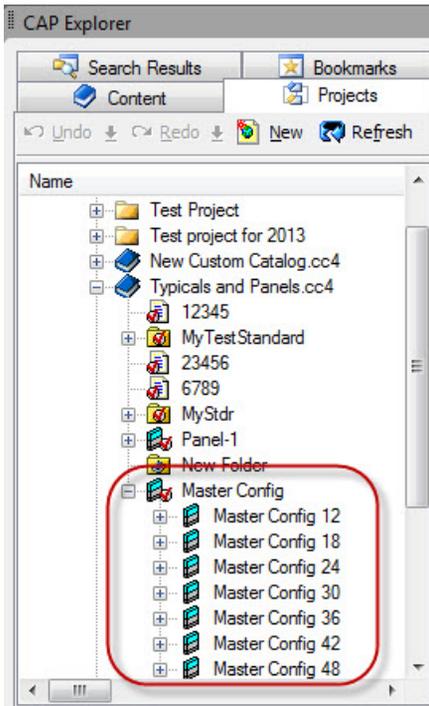
Change existing configurations in the drawing

You can make changes quickly to a layout by replacing configurations in the drawing. You can apply the "master" configuration to any number of panel configurations already in the drawing. The appropriate width configuration will then replace the selected target configuration(s). This allows generic space planning, which you can then populate with finalized stack configurations.

Note: If you know that you would eventually like to place a certain configuration in a drawing but that configuration has not been created yet, you can place a "blank" configuration in your drawing to serve as a placeholder for the configuration you will eventually create and bring into that drawing. You can do this by following the steps listed below.

1. [Place multiple configurations](#) in the drawing.
2. Create new configurations and save them to the Custom Catalog.

3. Select the Master Configuration and drag it into the drawing.

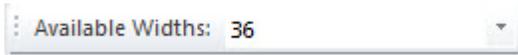


4. From the **Apply Panel Configuration** dialog box click the **Select Objects** button. This will take you to your drawing where you can select the configurations you wish to replace.
5. Press Enter and the **Apply Panel Configuration** dialog will return.
6. Click **OK**.

You will see the configurations you have selected change to the new configurations. If a new configuration is not valid for a selected configuration's frame it is not replaced and the original configuration remains in place.

View available widths

The **Available Widths** toolbar allows you to select a panel or door width to be used in configuration.



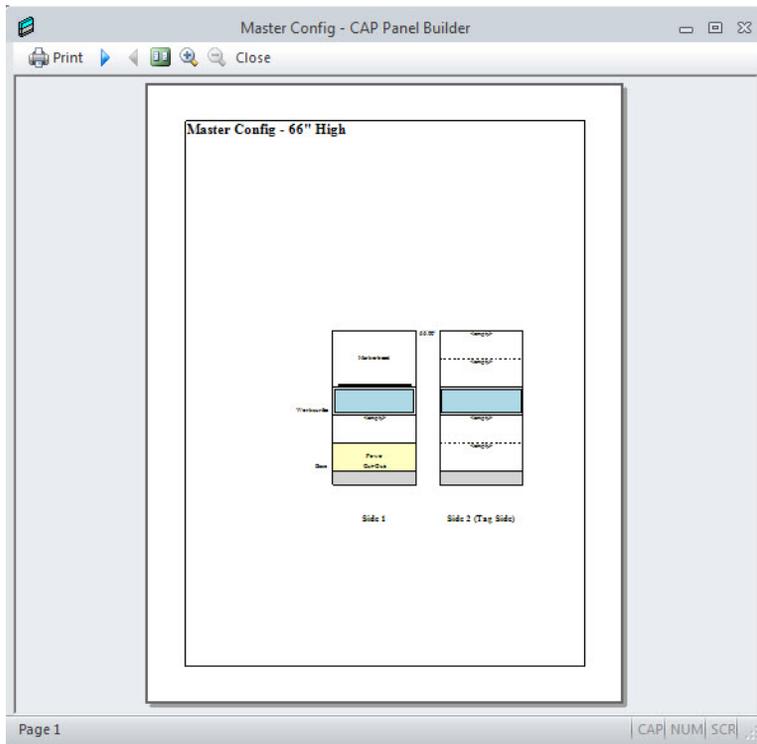
You can select any width for building configurations.

This is strictly a visual representation that Panel Builder uses to allow configurations to be built. When a configuration is saved, Panel Builder will automatically create all widths appropriate to the configuration type.

Exceptions to this include when using Power Builder for Steelcase - Answer, and when setting a custom width or a field cut property. See Use Power Configurations - Steelcase Answer.

Print a configuration

1. From the **File** menu, select **Print Preview**. Notice the name of the configuration at the top of the page. This can be a useful tool for installation documents.



2. Use the buttons on top to go to the next page, go to the previous page, toggle between one and two page display, or zoom in or out.
3. Click **Print** to print the configuration and **Close** to return to Panel Builder.

Find invalid or corrupted panel/power configurations

The CAP Designer **Check Panel/Power Configuration** command scans the drawing and marks invalid or corrupted configurations.

This function will check the following problems:

- ▶ Problem #1: A panel or power configuration exists in the drawing, but it cannot be found in the custom catalog.

In this situation, we recommend that you use the CAP Designer Configuration Manager dialog to rebuild the configurations to the custom catalog.

- ▶ Problem #2: A panel configuration exists in the drawing but does not have the configuration data to rebuild the custom catalog.

For every panel and power configuration used, the application stores a copy of the custom catalog data in the drawing. It uses this data to rebuild the custom catalog using the Configuration Manager dialog. If this information is missing, the application cannot rebuild the custom catalog. Panel and power configurations that refer to these non-existent data configurations are considered "corrupted." This typically occurs with a copy and paste between drawings, or by wblocking and inserting from one drawing to another.

It is entirely possible to have a configuration that passes the Problem #1 check, but fails the Problem #2 check. In these cases, the configuration data is not "backed up" in the drawing.

If a configuration is corrupted, it will have the following characteristics:

- ▶ Its configuration data is not in the drawing
- ▶ It cannot be opened in Panel Builder
- ▶ The Configuration Manager cannot rebuild it into a custom catalog
- ▶ It could be counted in a Worksheet takeoff ONLY if its custom catalog is present and found

To find invalid or corrupted panel/power configurations:

1. From the **CAP Designer** menu, select **CAP Panel Builder, Check Panel/Power Configuration**.
2. Click **OK** in the **Scan Panel Configurations** dialog to start scanning.

Corrupted panel blocks will be marked with a yellow circle, while corrupted power blocks will be marked with a red circle.

If the error circle says "Not Found," then it is Problem #1 listed above. If the error circle says "Corrupted," then it is Problem #2 listed above.

If corrupted panel blocks are found, the best practice is to erase them from the drawing and replace them with a valid configuration.

Manage or rebuild configurations

The Configuration Manager can help you:

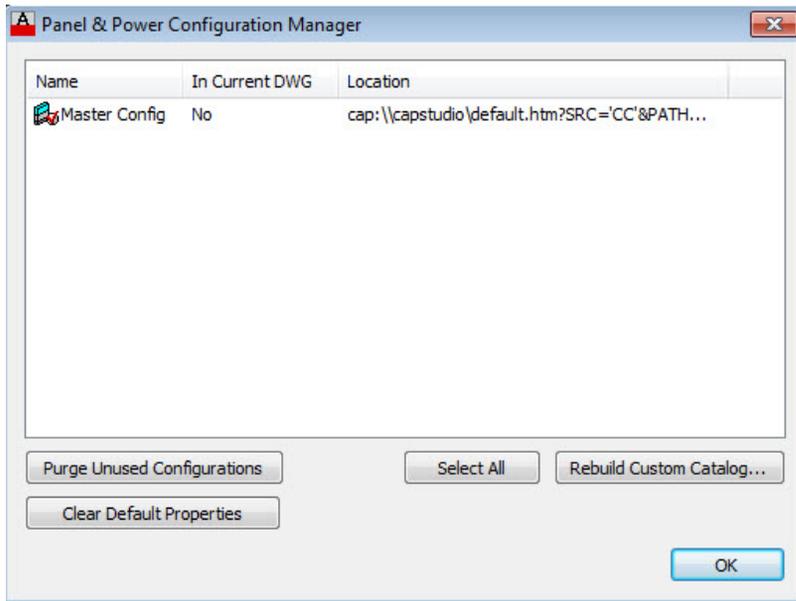
- ▶ Remove unused configurations from the drawing.
- ▶ Reset properties for frames and tiles.
- ▶ Rebuild configurations that exist in a drawing when the Custom Catalog for those configurations is not available. This would be required in these situations:

- File sharing: You need to open a drawing containing the panel configurations on a computer other than the one on which you originally created the drawing, and you want access to those configurations in a Custom Catalog.

- Data Recovery: A Custom Catalog containing the configurations has been inadvertently deleted.

1. From the **CAP Designer** menu select **Panel Builder, Configuration Manager**.

The **Configuration Manager** dialog box opens. All configurations that exist in the current drawing are listed, as well as the location of the Custom Catalog in which they are stored. For any configurations for which the Custom Catalog is not available the location indicates <Not Found>.



2. Click **Purge Unused Configurations** or **Clear Default Properties**.
3. To rebuild a custom catalog, select all configurations listed as **<Not Found>** and click the **Rebuild Custom Catalog** button.
4. In the **Rebuild Custom Catalog** dialog box, select an existing Custom Catalog in which to store the rebuilt configurations, or click the **New** button to create a new Custom Catalog.
 - Rebuilding to a new custom catalog rebuilds all valid configurations into the new catalog.
 - Rebuilding into an existing custom catalog redefines existing configurations in the catalog, defines any configurations in the drawing NOT in that custom catalog, and updates the links in the drawing to point to the rebuild custom catalog.

You will receive a warning informing you that rebuilding configurations to the existing custom catalog will corrupt those configurations in OTHER drawings which use the same existing custom catalog. If you do not want this to happen, click **No** and rebuild to a new custom catalog instead. Note that if you had a single custom catalog per drawing, this corruption will not be an issue. However, if other drawings use this configuration, you will have to rebuild the configuration in each of those drawings. Click **Yes** if you want to continue.

5. Click **OK** in the **Rebuild Custom Catalog** dialog.

A **Configuration Rebuild Progress** dialog opens and displays the progress of configurations being rebuilt.

When the process is complete, the **Configuration Manager** dialog returns.

6. Click **OK** to close the **Panel & Power Configuration Manager**.

Note: If you want to copy this drawing back to its original location, its configurations will be linked to the new custom catalog and not the original one. You must use the Configuration Manager again to rebuild the configurations in the original location.

Update panel configurations

The best practice is to have a single custom catalog associated with a single drawing. However, sometimes you need to associate a custom catalog with a set of drawings, as is the case where the same project spans multiple floors and each floor is a different drawing. When this happens, it is possible to be in one drawing, make a change to a Panel Builder configuration, and then want that change to be reflected in all the other drawings in the project.

When you edit and save an existing panel configuration, **all** occurrences of that configuration in the Custom Catalog **and** in the **current** drawing from which Panel Builder was launched are automatically updated. However, if the configuration is in other drawings, you must open each of those drawings and use the **Update Panel Configurations** command.

1. From the **CAP Designer** menu, select **CAP Panel Builder, Update Panel Configurations**.
2. Click **OK** when the **Update Configuration** dialog opens.

Note: After a drawing's existing configurations have been automatically updated, it is possible that invalid configurations may now be placed on the existing frames. For example, the configuration for an 18" wide panel in the drawing is changed to include a glass skin. Glass is not available in 18" width panels, therefore the updated configuration on the existing 18" panel is invalid. During the update process these invalid configuration assignments (also called "orphans") are detected and circled in yellow in the drawing. A tooltip is assigned to the circle which gives an explanation of the error for that specific instance.

Insert panel elevations in the drawing

Once your drawing is complete, you will need to create elevation views of all the configurations so that installers can determine how to build them. Panel Builder has two types of elevations: dynamic and static.

The best practice is to use static elevations, for the reasons outlined below:

- ▶ Dynamic elevations are designed to support full height wall products. Instead of showing the front and back of each configuration, they show a view run of panels. In most drawings this would result in many more elevations, which is why they may not be the best practice for the product line that you are working with in Panel Builder.
- ▶ Since they are dynamic, there is a link between them and the configurations associated with them. While this link means that, unlike static elevations, they do not have to be updated when configurations change, it also means that they cannot be exploded and manually edited to add more information to them.

See:

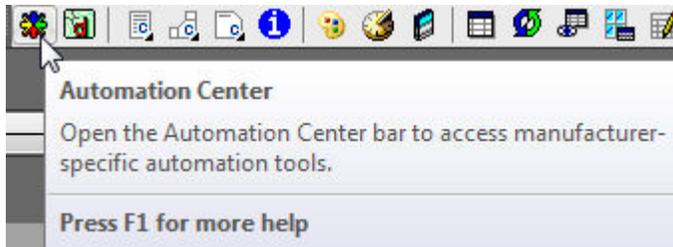
- ▶ [Insert dynamic panel-run elevations](#)
- ▶ [Insert static panel elevations](#)

Insert dynamic panel-run elevations

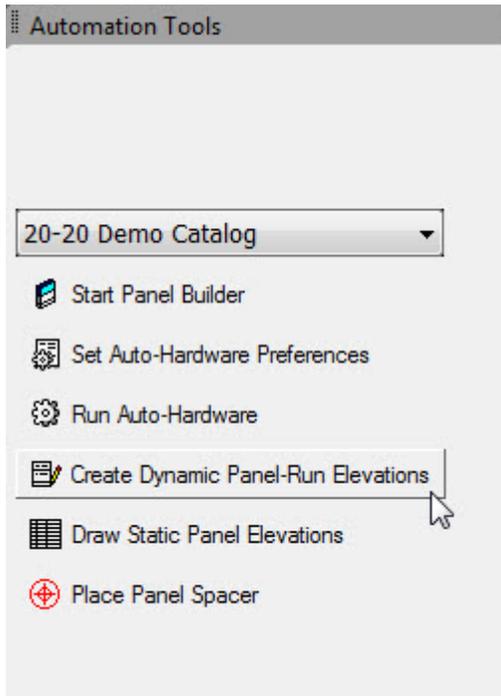
Note: The manufacturer catalog you are working with determines the availability of this feature. The way panel run elevations are created is also manufacturer-specific.

A dynamic panel-run elevation is logically "connected" to its plan-view parent so that if the parent configuration is modified, the elevation is also immediately modified to match the parent configuration. Linked elevations are a one-to-one relationship to their parent. Should the parent plan-view graphics of a linked elevation be erased, the elevation is also erased.

1. Click the **Automation Center** icon in the CAP Designer toolbar.

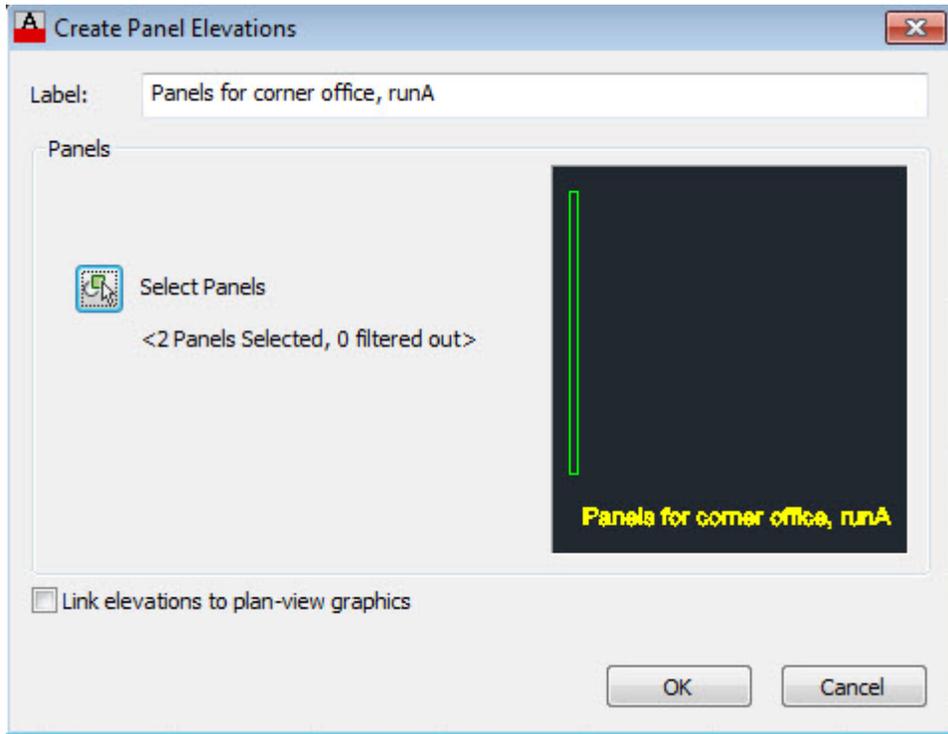


2. Click **Create Dynamic Panel-Run Elevations**.



3. In the **Create Panel Elevations** dialog box, give your panel elevation a name in the **Label** field.
4. Click the Select Panels icon and select the panels for which you want an elevation.
5. Click to select the elevation view location to be used for your elevation. (For example, if you would like to get an elevation for a panel on the inside of a configuration, click inside the panel structure.)
6. Move the mouse toward the panel whose elevation you would like to capture and click.

The **Create Panel Elevations** dialog window returns with the panel elevation displayed.



7. Click **OK**.

The **Create Panel Elevations** dialog box closes and your panel elevation is attached to your mouse.

8. Click at the location in your drawing where you would like to place your elevation.

9. Rotate your elevation if necessary and click to set the elevation in place.

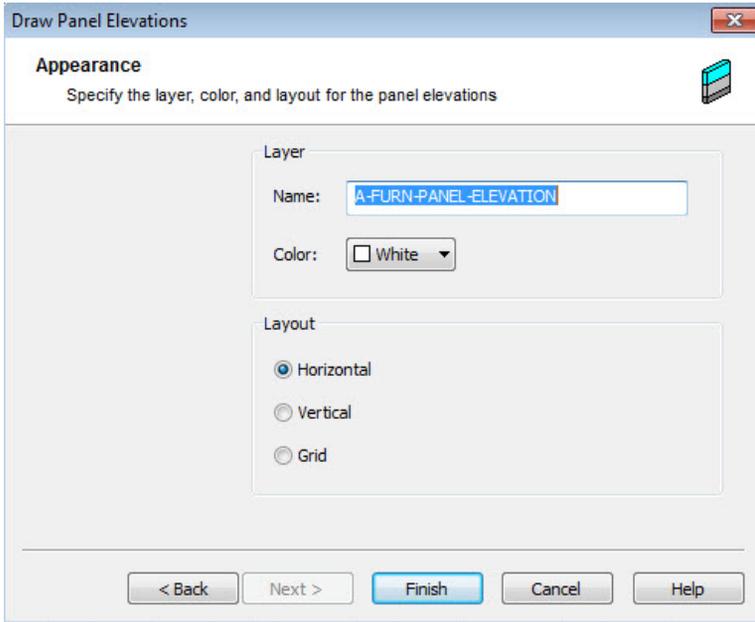
Insert static panel elevations

Static elevations are designed to look like the Panel Builder configurations as seen in the [Panel configuration pane](#). Installation drawings are easily created using the Draw Static Panel Elevations command.

Note: As their name implies, static elevations do not change. If you edit a Panel Builder configuration, you will need to create a new static elevation for that configuration. Because they are static, they are simple AutoCAD blocks. If they need additional information, you can explode and manipulate them.

1. From the **CAP Designer** menu, select **CAP Panel Builder, Draw Panel Elevations**.

The **Draw Panel Elevations** dialog box appears, listing the panel configurations used in the drawing.
2. Click the **Select All** button or select the configurations you wish to have elevations for.
3. Click **Next**.
4. In the **Appearance** dialog box, you can change the layer and layer color that the elevations will be created on. Also select the layout you wish to have.



5. Click **Finish**.
6. Pick a point on the drawing; the upper left hand corner of the elevation layout will be inserted here.

The elevations are blocks and can be moved as needed.

When you edit or change your configurations, the elevations will be updated in the drawing. However, if you change the elevations when the drawing is not open, the elevation will not be updated. Erase and reinsert the elevations into the drawing.

Best Practices

Here are some best practices when working with Panel Builder:

- ▶ As much as possible, maintain one custom catalog per drawing.
- ▶ Keep the custom catalog and the drawing in the same folder.
- ▶ When sharing within an office, keep the drawing and custom catalog in the same folder on the network, mapped the same on each user machine.
- ▶ Do not use the AutoCAD Mirror, Explode or WBlock commands on Panel Builder configurations. Doing so will corrupt these configurations.
- ▶ Use the Panel Builder **Save As** command to copy configurations between drawings. Do not use WBlock or cut and paste.
- ▶ To maintain future flexibility when editing, give Panel Builder configurations short unique names. Do not include the height of the frame in the name.
- ▶ Use the Configuration Manager to [rebuild configurations](#) when sharing with a remote office or notebook computer.
- ▶ If you have multiple drawings sharing the same custom catalog, don't rebuild the custom catalog from one of the drawings. If you do so, each drawing will need to be rebuilt into its own unique custom catalog.
- ▶ Use Static Elevations for large drawings with many occurrences of the same configurations. Reserve Dynamic elevations for complicated configurations where an entire run of panels needs a single elevation.

Command reference

This section lists commands available through the various menus. All commands are already referenced by their respective tasks in this help file. The following topics give you a brief description of menus and commands and provide links to corresponding topics.

- ▶ [File menu](#)
- ▶ [Edit menu](#)
- ▶ [View menu](#)
- ▶ [Tools menu](#)
- ▶ [Help menu](#)

File menu

Command	Shortcut	Description	Help topic
New	Ctrl+N	Create a new panel configuration	Create a panel configuration
Open	Ctrl+O	Open a panel configuration	Open a configuration from Panel Builder
Save	Ctrl+S	Save the current panel configuration	Save the configuration
Save As		Save the current panel configuration under a different name	Create a configuration from an existing one

Command	Shortcut	Description	Help topic
Page Setup		Select the paper size, orientation, and margins for the configuration printout.	
Print Preview		Preview the current panel configuration before printing	Print a configuration
Print	Ctrl+P	Print the current panel configuration	Print a configuration
Exit		<p>Close the 2020 CAP Panel Builder program.</p> <p>If an unsaved configuration is on the screen, the program will ask you to Save (Yes or No) or to Cancel the Exit command.</p>	

Edit menu

Command	Shortcut	Description	Help topic
Delete	Delete	Remove the selected element from the configuration	Create a panel configuration
Copy Side 1 to Side 2 Available per manufacturer		Copy skins from side 1 to side 2.	Create a panel configuration
Copy Side 2 to Side 1 Available per manufacturer		Copy skins from side 2 to side 1.	Create a panel configuration

View menu

Command	Description	Help topic
Toolbars	Show or hide toolbars, the Content Bar, or the Properties bar. Also, customize existing toolbars.	Toolbars
Design Alerts	Enable or disable the display of an Alert dialog whenever you place an element that does not follow design rules.	Design rules
Status Bar	Show or hide the Status bar.	
Refresh	Redraw the panel configuration.	

Tools menu

Command	Description	Help topic
Apply Finish Code	Apply a user-defined finish code to the panel configuration.	Apply a finish code
Options	Show the Max Height line on the Panel configuration pane. Select the 2020 Worksheet field that will store finish code or tag assigned in the Properties bar.	

Help menu

Command	Description
Topics	Open the 2020 CAP Panel Builder online help
What's New	Open the What's New window where you can read about and download software and manufacturer catalog updates.
www.2020spaces.com	Access updates online
Diagnostics	Troubleshoot and repair damaged files
About CAP Studio	Displays the 2020 CAP Panel Builder version number