

What's New in Chief Architect X12

Welcome to Chief Architect X12. This guide has been written to help our upgrading customers make a smooth transition from earlier versions of Chief Architect to Chief Architect X12.

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Getting Started Checklist

There are many new features in Chief Architect X12, and many existing features have changed. The following checklist suggests steps you should take before migrating your files to Chief Architect X12. More information about each of these steps can be found after the checklist.

1. Review the List of New and Improved Features

There are a number of important reasons why you should familiarize yourself with the new and improved features in Chief Architect X12:

- New and improved features allow you to produce drawings more efficiently, so it is to your advantage to use them.
- Some changes to existing functionality may affect your accustomed drawing style and thus your productivity if you are not aware of them.
- New features may affect your choice of settings in your template files, as well as your preferred Preferences settings.

See "New and Improved Features" on page 9.

2. Review the Considerations for Migrating Legacy Content

Legacy users of Chief Architect often have library catalogs and other custom content that they want to continue using. See "Considerations for Migrating Legacy Content" on page 2.

3. Review the Considerations for Migrating Legacy Settings

Before migrating Preferences, Toolbars, or Hotkeys, bear in mind that legacy settings may not be best suited for using the new program version. See "Considerations for Migrating Legacy Settings" on page 3.

4. Review the Considerations for Migrating Legacy Templates

Before migrating Templates, bear in mind that they may not be set up to take advantage of new tools in the new program version. See "Considerations for Migrating Legacy Templates" on page 3.

5. Review the Considerations for Legacy Files

Before opening a plan or layout file created in a previous version of Chief Architect, be aware of potential changes to the file that could occur in the new program version. See "Considerations for Legacy Files" on page 3.

6. Launch Chief Architect X12.

Once you have learned about the new features in Version X12 and decided whether to migrate any custom settings from a legacy program version, launch Chief Architect X12. The first time you launch, the Migrate Settings dialog will give you the opportunity to bring legacy settings and content forward into Version X12.

Considerations for Migrating Legacy Content

Legacy users of Chief Architect often have a wealth of library catalogs and other custom content that they have built over time and want to continue using.

Legacy Library Content

There are several ways that legacy library catalogs can be brought into Chief Architect X12.

If you have Chief Architect version X5 through X11 installed on your computer, the **Migrate Settings** dialog will display after you activate the license, allowing you to migrate library content as well as a selection of other settings for use in Chief Architect X12. If multiple legacy versions are present on the system, only the data associated with the most recent will be migrated.

You can import library files from versions X1 through X5 at any time by selecting **Library> Import Library (.calib, .calibz)** from the program menu.

In addition, library files from versions 10 and prior can be imported by selecting **Library> Convert Legacy (.alb) Library Files** from the program menu.

Custom Graphics Files

Chief Architect can use graphics files regardless of where they are stored on your system; however, it is a good idea to keep your data organized in one location. If you have custom graphics files, including textures, images or backdrops that you used in a previous program version, you can copy them manually using your operating system for use in Chief Architect X12.

- Copy custom texture files to the Chief Architect X12 Textures folder located in the Chief Architect X12 Data folder.
- Copy custom image files to your Chief Architect X12 Images folder located in the Chief Architect X12 Data folder.
- Copy custom backdrop files to your Chief Architect X12 Backdrops folder located in the Chief Architect X12 Data folder.

In Chief Architect X11 through X1, custom graphics were saved in the Chief Architect Data folder, as they are in version X12. In version 10, they were located in the program's installation directory, in folders that began with "My". Custom backdrops, for example, were saved in "My Backdrops".

Texture and image files are not listed in the Library Browser. These files can be assigned to material and image objects, however, which are stored in the library so it is important to retain them.

Considerations for Migrating Legacy Settings

The Migrate Settings dialog lets you migrate settings from the most recent legacy installation of Chief Architect into Version X12. If you have extensively customized your Preferences, Toolbars, or Hotkeys, you may want to continue using those settings. Before doing so, though, it is important to consider that you may make it harder to take advantage of new tools and functionality in Version X12.

Preferences Settings

Although you can migrate your Preferences settings from Versions X5 through X11 into Version X12, the settings that are available in Version X12 may differ from previous program versions. You should review all the settings in the **Preferences** dialog to make sure that they are set to suit your drawing needs.

Custom Toolbar Configurations

It is possible to migrate toolbar configuration files from previous versions to Chief Architect X12; however, it is also possible that your migrated toolbars will be missing new tools available in Version X12.

We recommend that you set up your custom toolbars the way you would like them in Chief Architect X12. You may find it most effective to customize your toolbars as you get used to working in the new program version, rather than beforehand.

Custom Hotkeys

Like toolbar configurations, legacy hotkeys can be migrated into Chief Architect X12. Bear in mind, though, that occasionally the default hotkeys are modified to accommodate new features or changes in default system hotkeys.

Considerations for Migrating Legacy Templates

Chief Architect X12 installs a selection of template plan and layout files that have been set up to take advantage of the program's updated tools and features. Although you can migrate your template files for use in Version X12, for best results it is recommended that you either:

- Use the installed templates when creating new plans and layout files in Chief Architect X12
- Use the installed templates as the basis for creating new custom templates.

If you choose to continue using custom template files that you created in a previous program version, it is very important that you take the time to carefully review all the default settings in the file, making sure that they will continue to suit your needs in X12. First, make copies of your custom templates in the Chief Architect X12 Templates directory. The Templates directory is located in the Chief Architect X12 Data folder. Next, open each template as you would a regular plan or layout file, by selecting **File> Open**, and then save any changes you make by selecting **File> Save**.

If you do choose to continue using a legacy template plan, it is best to also use a legacy layout template from the same program version, as well. As with a template plan, take the time to go through the layout template's defaults and make sure they are suited for use in X12 and that their line weight scales do not conflict with those in your template plans.

Considerations for Legacy Files

As in all software, every new program version introduces changes to its functionality as well as to the user interface. If you choose to bring a project forward, be sure to take a few moments to look it over in the new version and confirm that the new functionality does not require you to make any modifications. Particularly if

you have an approaching deadline, you may find it best to finish the current project in the version of the software in which you began it.

Chief Architect X12 can open the **.plan** and **.layout** files from prior versions. Files with the older **.pl** and **.la** file extensions are no longer supported, however, and cannot be opened by Chief Architect X12. Before opening any files created in earlier versions of Chief Architect, it is important to be aware of changes made in the newest version and the effect they may have on your legacy plan and layout files.

Please note that files saved in the latest program version cannot be read by older versions of the software. When a legacy file is saved in the version X12, an unaltered copy of the original file is created in the Chief Architect X12 Data folder, under Archives, which can still be opened in the original version.

- "For Files Created in Version X10 and Prior" on page 4
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For Files Created in Version X11 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X11 or prior, bear in mind the following:

1. Perspective Crop Mode

In Chief Architect X8 through X11, Perspective Crop Mode allowed older functionality governing zooming in cameras from Version X7 and prior to be preserved in saved cameras in legacy plans migrated forward. This deprecated tool has been removed from the program's menu and toolbars in Version X12, although it can be migrated with legacy toolbars and hotkeys. Saved cameras in legacy plans with this behavior enabled may become distorted if you pan or zoom in the view. To permanently disable this behavior in a camera view and resolve the resulting distortion, select **Window > Fill Window** or press the F6 key.

2. Layout Layer Sets

In Chief Architect X11 and prior, the Send to Layout dialog had a sticky Make Copy of Active Layer Set option that created a new layer set for the layout view to help preserve layer settings in that view. This option was removed in Version X12 to encourage use of the multiple saved plan views. Saved plan views did not exist in Version X9 and prior, however, so if you open a plan originally created in Version X9 or prior, extra care must be taken to make sure layout views do not use the same layer set.

3. Materials List Formulas and Ruby Macros

Name-Value Pairs returned length, area, and volume measurements as Floats. In Version X12, these values are reported using the Measurement class that includes both a numeric value and a unit. Older Ruby code may change behavior when migrated into Version X12. When a legacy Ruby macro or materials list formula is evaluated, the program will automatically check its version and prompt you to migrate it to the newest version.

For Files Created in Version X10 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X10 or prior, bear in mind the following:

1. Marker and Elevation Point Heights

In Chief Architect X10 and prior, the # sign could be added to the label of a Marker or Elevation Point and the label would report the height of the Marker or the Elevation Point's elevation. In Version X12, text macros are

used to report this information instead. In legacy plans, any # signs in Marker or Elevation Point labels will be replaced by the %heightf% or %elevationf% macro.

2. Glass Shower Walls

In Chief Architect X10 and prior, the “Glass Shower” wall type was included in installed template files and like other wall types, built to the structural layer of floors and ceilings and to the Main Layer of adjacent walls. In Version X12, this wall type has the new Partition Wall attribute and instead builds to floor, ceiling, and wall surfaces. When a legacy file is opened in Version X12, this wall type will be modified to have Partition Wall checked automatically and existing walls will be affected by this change.

3. Fixture Schedules

In Chief Architect X10 and prior, 3D Elevations and Perspectives in Fixture Schedules showed cabinet fixtures inserted into a cabinet. In Version X12, fixtures are shown on their own, even when they are inserted into an object in the plan. When a legacy file is opened in Version X12, any fixture schedules showing 3D views of objects may be affected by this change.

For Files Created in Version X9 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X9 or prior, bear in mind the following:

1. Parallel Lights

In Chief Architect X9 and prior, Parallel Light sources could be specified for electrical light fixtures and Added Lights. In Version X12, Parallel Lights are no longer supported. In legacy plans opened in Version X12, any Parallel Light sources will be converted to Spot Lights.

2. Brick Ledges

In Chief Architect X9 and prior, brick ledges were not represented in floor plan view. In Version X12, brick ledges are drawn in plan view on the “Slabs” layer in stem wall and grade beam foundations, and on the “Walls, Foundation” layer in monolithic slab foundations. When a legacy file is opened in Version X12, brick ledges, if present, will be drawn.

3. Window Types

In Chief Architect X9 and prior, the %type% text macro for windows reported some Window Types using abbreviations. In Version X12, the abbreviations were replaced with full words. When a legacy file is opened in Version X12, the width of Window Schedules may be affected, as may the width of columns in saved Materials Lists.

4. Joist Direction Lines

In Chief Architect X9 and prior, Joist Direction Lines described all platform framing as “joists” and used nominal lumber sizes in whole inches in US Unit plans. In Version X12, the platform’s framing Structure Type is reported and in US Unit plans, the size is described in fractional inches. When a legacy file is opened in Version X12, Joist Direction Lines will use the new, more accurate labeling.

5. Custom Schedule Columns

In Chief Architect X9 and prior, custom schedule columns could be created by adding a Sub Category to a type of object on the Categories panel of the Preferences dialog. In Version X12, Sub Categories can no longer be created in this manner. When a legacy file is opened in Version X12, any Sub Categories shown as custom schedule columns will be converted to Custom Fields.

6. Registered User Text Macros

In Chief Architect X9 and prior, a selection of Registered User Text Macros could be inserted into Texts, Callouts, and Markers. These macros no longer displayed any data and in Version X12, they are no longer recognized. When a legacy file is opened in Version X12, any Registered User macros inserted into text objects are treated as regular text.

For Files Created in Version X8 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X8 or prior, bear in mind the following:

1. Layer Names

In Chief Architect X8 and prior, turning off the Modify Name in all Layer Sets option made it possible to assign different names to the same layer in different layer sets. In Version X9, this option was no longer supported. When a legacy file is opened in X12, the layer names used in the currently active layer set will be retained and any other layer names in other layer sets will be discarded.

For Files Created in Version X7 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X7 or prior, bear in mind the following:

1. Boxed Eaves

In Chief Architect X8, improvements to the generation of Boxed Eaves ensure that they extend into exterior rooms with “Use Soffit Surface for Ceiling” specified when located between the roof baseline and an interior room. In some legacy plans opened in Version X12, the **Length** value for Boxed Eaves may need to be modified in the **Roof Plane Specification** dialog.

2. Uppercase Text

The Uppercase option was added to Text Styles in Version X8, whereas in Version X7 and prior, it was an option for Room Labels and Schedules only. In legacy plans opened in Version X8, any Schedules present in the drawing will be assigned a Custom Text Style, as will their associated Schedule Defaults. If any Schedule Default is set to Use Layer for Text Style and no objects are present on that layer, a new Schedule Text Style will be created and assigned to that layer. Room Labels are treated similarly: if any are present, they and their defaults will use a Custom Text Style. If a given Room Label or Schedule has been sent to layout more than once and was set to use different Text Styles in each layout view, it is possible that its appearance may be affected in some views.

For Files Created in Version X6 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X6 or prior, bear in mind the following:

1. Built-in Appliances

In Chief Architect X6 and prior, some appliance symbols designed to be inserted into base cabinets had incorrect sizing data. In legacy plans opened in Version X12, these appliances will not fit into the cabinet correctly and will need to be replaced. Built-in dishwashers are particularly affected.

2. Formatting of Bulleted and Numbered Lists

In Version X7, various improvements were made to the way lines of Rich Text are spaced. In legacy plans opened in Version X7, Rich Text objects with bulleted and numbered lists may require adjustments.

3. Chief Blueprint Font

The Chief Blueprint font was improved for Version X6, with decreased top and bottom spacing. The change in spacing may increase the overall height of text objects using this font in X6 files opened in Version X12. X5 and prior legacy files will not be affected by this change.

For Files Created in Version X5 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X5 or prior, bear in mind the following:

1. Name-Value Pairs for Doors and Windows

In Version X6, the NVPs `door_style_name`, `door_type_name`, and `window_type_name` were shortened to `style_name` and `type_name`. Any object labels or text macros using these NVPs in legacy plans opened in Version X12 will need to be replaced.

For Files Created in Version X4 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X4 or prior, bear in mind the following:

1. Roof Overhangs and Framing

In Chief Architect X4 and prior, roof overhangs were measured to the outside of the subfascia, whereas in Version X5 and later, they are measured to the outside of the fascia or shadow boards, if present. In legacy plans opened in Version X12, this will not affect the appearance of roof planes in floor plan view because in X4 and prior, roof plane polylines represented the projected framing area whereas in Version X12 they represent the total projected area. But, the position of the fascia and subfascia will shift, as will the length of the rafters.

2. Door Swing Direction and Materials

In Chief Architect X4 and prior, exterior doors that swing outward display interior material on exterior side of door. This was corrected in Version X12. Doors modified to work around the old behavior could be affected in legacy plans opened in Version X5.

3. Door Swing Direction and Louvers

Improvements to door louver direction may affect louvers in all doors with the exception of bifold doors.

4. Wrapped Door/Window Lintels and Window Sills

In Chief Architect X4 and prior, wrapped lintels and sills extended out further than those that were not wrapped. In legacy plans opened in Version X12, the extents of wrapped lintels and sills will be adjusted so that they equal their **Extend** setting.

5. Cabinet Feet

The offsets for cabinet foot millwork symbols in Version X4 and prior were set per millwork symbol to insert into cabinets effectively. In Version X12, the offset is set in the **Cabinet Specification** dialogs. When legacy plans are opened in Version X5, cabinet foot offsets are set to 0 and transferred to their containing cabinet, if one exists. Any customized or independently placed cabinet feet will be affected.

6. Object Labels in Cross Section/Elevation Views

If a "Label" layer is turned on in a cross section/elevation view and objects of that type are visible in the view, then those objects' labels will display in that view when the plan is opened in Version X12.

7. Transparent Materials

In Chief Architect X4, materials assigned to the Transparent Material Class for ray tracing were visible in rendered views even when their Index of Refraction was set to 1.0. When legacy plans are opened in Version X12, Transparent materials with an Index of Refraction of 1.0 are transferred to the General Material class and assigned a Transparency value of 100%. This will not affect these materials' appearance in ray trace views, but will make them completely invisible in rendered views.

8. Registered User Text Macros

In Chief Architect X4 and prior, a selection of Registered User Text Macros could be inserted into Texts, Callouts, and Markers. These macros reported information that was provided when the program was installed and registered on the computer. In Version X5 and later, the program no longer collects registered user information. When a legacy file is opened in Version X12, any Registered User macros inserted into text objects are treated as regular text.

9. Invisible Beams

The legacy **Invisible Beam** check box was removed from the **Wall Specification** dialog. When legacy plans are opened in Version X12, any **Invisible Beam** walls will be converted to Invisible Walls.

For Files Created in Version X3 and Prior

In addition to the above recommendations, if you wish to open files created in Chief Architect Version X3 or prior, bear in mind the following:

1. Text Styles

The appearance of a number of objects that include text - including object labels, the North Pointer, Sun Angles, Joist Direction Lines, the Up/Down arrows for stairs and ramps - can now be controlled using Text Style. Their appearance may be altered somewhat in legacy plans opened in Chief Architect X12.

2. Light Sources

The illumination created by light fixtures and Added Lights was improved in Chief Architect X12. Lighting in legacy plans may appear noticeably brighter when viewed in version X12.

For Files Created in Version X2 and Prior

If you wish to open files created in Chief Architect Version X2 or prior, bear in mind the following file management changes and structural enhancements:

1. Legacy file formats

Chief Architect 9.5 and prior files were saved in .pl and .la the file formats. These file formats files are no longer supported and cannot be opened in version X12.

2. Material textures, images, and backdrops

Chief Architect X2 and prior installed with a catalog of library content, including a selection of material textures, images, and backdrops. This library catalog is no longer installed with the program because it is now available for download on-demand, so it will be possible to open a legacy plan in version X12 and encounter numerous missing file warnings. To avoid this, we recommend using the **Export Entire Plan** feature in the original program version to create a folder that includes the plan and all associated textures, images, and backdrops before opening this file in X12. This tool is renamed Backup Entire Plan in version X12.

3. Floor and ceiling finish thicknesses

In Chief Architect X2 and prior, floor and ceiling finish layers were not modeled in 3D, and objects such as railings, stairs, landings, cabinets, fixtures, and furnishings measured their Floor to Bottom height from the subfloor. These objects now measure their Floor to Bottom height from the floor finish surface by default, so it is possible that you may notice height changes for these objects - particularly in saved, annotated cross section/ elevation views.

4. Riser heights and landing thicknesses

The default Best Fit Riser Height for stairs that do not reach the next level has been updated from 9" (225 mm) in version X2 and prior to 6 3/4" (169 mm) in Chief Architect X12.

5. Auto Adjust Height

The Follow Terrain option in some specification dialogs was replaced by the Auto Adjust Height check box. If a cabinet, fireplace, fixture, furniture, or other library symbol had Follow Terrain unchecked in version X2 or prior and was located in a room with a floor height other than the default for the current floor, then the object's Floor to Bottom Height will change to equal that room's floor height. The object's position in the model will not change, however.

6. Adjustable Thickness Walls

In Chief Architect X2 and prior, generic, single-layer wall types were available for use. When a legacy plan file is opened in version X12 and these wall types are detected, they are replaced by an updated, non-generic wall type. Framed walls and Railings will also acquire 1/2" (13 mm) thick layers of sheetrock on each side.

7. Stairwells defined by railings

Interior railings that used a generic, single-layer wall type drawn in older program versions will acquire layers of sheetrock when the plan is opened in version X12. This can affect the appearance of staircases where they join to a floor platform. To address this issue, select the railing and move it 1/2" (13 mm) away from the top edge of the staircase.

8. Deck rooms

In legacy plans opened in Chief Architect X12, Deck rooms with Advanced Deck Framing built retain the framing but have Automatic Deck Framing turned off by default. Decks with no Advanced Deck Framing built are converted to Balcony rooms.

9. Material definitions and light sources

Settings in the **Define Material** dialog that affect materials' appearance of brightness have been modified. The **Ambient** setting was removed, and the **Diffuse** setting for materials in legacy plans will be set to 100% when opened in version X12.

The Quality setting for light sources set to use Soft Shadows in ray tracing was also modified. Lights using Soft Shadows in legacy plans will be set to use Medium quality. The Light Diameter of light sources in legacy plans is capped at 4" (100 mm).

10. Structural Member Reporting

When a plan created in Chief Architect X2 or prior is opened in Chief Architect X12, Materials Lists are set to calculate **Total Lineal Length**. For a combination of lineal length and piece count, select **Mixed Reporting** in the **Structural Member Reporting** dialog.

11. Fill New Framing Members

In Chief Architect X2 and prior, Fill New Framing Members was view-specific; in Chief Architect X12 it applies to the entire plan. As a result, it is turned off by default in legacy plans opened in version X12.


New and Improved Features

The following is a list of new and improved features in Chief Architect Version X12.

Installation

- City Blueprint and Country Blueprint fonts are no longer installed with Chief Architect.


Program Overview

- New **Crosshairs**  toggle button.
- The Status Bar now displays a description of a tool both when the mouse pointer is highlighting it and when it is active.

Project Management

- Schedules are now listed in the Project Browser.
- Files and views can now be saved using the contextual menu in the Project Browser.

Preferences and Default Settings


- Annotation Sets have been renamed **Default Sets**.
- Revision Clouds are now included in Default Sets.
- The **Save as Template**  tool now has options for purging data from a file.
- The **Active Defaults** dialog now states the name of the currently active view in its title bar and has a **Rename** option for saved defaults.
- New **Reset Migration** option allows you to be reprompted to migrate contents and settings from an older program version.

View and Window Tools


- The reorganized **Saved Plan View Specification** dialog now has three panels.
- New **Save** options in the **Saved Plan View Specification** dialog let you control if and when changes to the view are saved.

- New **Link to Layout** option in the **Saved Plan View Specification** dialog.
- The Aerial View side window has been removed from the program.







Creating Objects

- The Copy and Paste in Place edit tool has been replaced by the **Paste Hold Position**  edit tool.


Displaying Objects

- The background color and transparency for fill patterns can now be specified.
- New **Style Palette**  tool lets you apply whole sets of attributes to multiple objects to quickly change the look of a room.
- New **Reset Layer Names** and **Delete Unused Layers** options in the **Layer Display Options** dialog.
- Obsolete settings for camera views were removed from the **Layer Set Defaults** dialog.


Editing Objects

- New **Point to Point Center**  edit tool lets you quickly center an object between two points.
- The Break Line edit tool has been renamed **Break** .
- Improved feedback using the **Point to Point Move**  edit tool.
- New **Layer Options for Converted Polyline** in the **Convert Polyline** dialog.
- Improved granularity of object categories in the **Delete Objects** dialog. Walls, cameras, Added Lights and additional framing objects can now be deleted, as well.
- The new **Marquee Mode**  for the Style Palette Painter, Fill Style Painter, and Object Painter lets you apply attributes to objects by drawing a marquee around them instead of clicking on them.
- The **Trim Object(s)**  and **Extend Object(s)**  edit tools are now available for elevation lines and polylines.
- An existing CAD Detail can now be copied.



Walls, Railings, and Fencing

- New **Delete All Unused** option lets you remove all unused wall types from the current plan.
- The **Break**  edit tool has replaced the Break Wall tool.
- New setting in the **General Wall Defaults** dialog lets you turn off the **Auto Reverse Wall Layers** behavior.

Rooms

- New tools for creating Trey Ceilings.
- New **Calculate Structural Materials for Deck**  edit button for Deck rooms.
- COMPONENTS and SCHEDULE panels have been added to the **Room Specification** dialog.
- Moldings can now be specified in the **Room Type Defaults** dialogs.
- Crown moldings are now offset from the ceiling rather than the floor.

Dimensions

- New **Add Segments** edit handles allow you to increase the length of a dimension line and locate additional objects at the same time.
- New **Suppress Dimension Value** option lets you completely replace the information in a dimension line label.
- New **Mark as Centerline**  and **Remove Centerline Mark**  edit tools are available for a selected extension line.

Text, Callouts, and Markers


- Improved interface in the **Find/Replace Text** and **Check Spelling** dialogs.
- New “Selected Objects” scope in the **Find/Replace Text** dialog.
- Improved ability to search for % character using the **Find/Replace Text** tool.
- The deprecated Special Use option for lines with arrows has been removed from the program.

Doors and Windows

- New “Match Interior” option for exterior door handles and locks.
- New **Box Header** option produces horizontal top and bottom header rails.

- Panel door top rail and side stiles can now be specified separately to produce offset lites.
- The **Automatic** behavior governing door and window Header Type is both improved and now optional, allowing you to specify any header type, regardless of the wall's Main Layer material.
- New **All Glass** option for Glass Panel garage doors.
- Muller units with Treat as Door specified are now placed on the "Doors" layer.
- A window's sash can now be suppressed by unchecking a box.
- Windows can now be positioned in a corner using the end Resize handles.
- Nested CAD blocks can no longer be used when creating Custom Muntins.

Cabinets



- New **Add Waterfall to Selected Edge**  edit tool for Custom Countertops.
- The **Reverse Appliance** option now applies to individual appliances inserted into a cabinet instead of all appliances in that cabinet.
- Top-mounted appliances and fixtures can now be selected, offset, and reversed in the **Cabinet Specification** dialog.
- The interior material for cabinet boxes can now be specified independent of the exterior box material.
- Countertops, backsplashes, and toe kicks can each be suppressed on an individual cabinet by unchecking a box.

Schedules and Object Labels

- New Custom Schedule Categories.
- Schedules can now be set to include multiple objects types.
- Objects can now be assigned to categories other than their initial system category, as well as assigned to multiple categories.
- The **Additional Text** settings for Automatic labels were moved from the **Schedule Specification** dialog to the LABEL panel of applicable objects' specification dialogs.
- The OBJECT INFORMATION and SCHEDULE panels have been added to the specification dialogs for a variety of objects.

- New **Include Leading Zeroes** option for schedule callout labels.
- The deprecated **Show Labels** check box was removed from the **Schedule Specification** dialog.


Stairs, Ramps, and Landings

- New Stringer options for Stairs.
- The **Break**  edit tool is now available for stairs and ramps.
- The **Disconnect Edge**  edit tool is now available for stairs and ramps.
- L and U Shaped Stairs can now be created with multiple landings.
- Connected stair sections can now have different widths.
- Merged stair or ramp sections now move along with a selected landing when it is moved. To move landings and/or merged stair sections separately, hold down the Alt key.
- Stairs now bump into landings and other stairs when moved.

Roofs

- New structural diagram in the **Roof Plane Specification** dialog illustrates the location of the **Height/Pitch Lock** point as well as the selected setting.
- The COMPONENTS panel has been added to the **Roof Plane, Ceiling Plane, and Roof Hole/Skylight Specification** dialogs.
- The **Make Roof Baseline Polyline** check box is no longer active when **Build Roof Planes** is checked in the **Build Roof** dialog.
- A preview of the Default Ridge Cap profile now displays on the RIDGE CAPS panel.
- The deprecated Change Roof Pitch or Height dialog has been removed from the program.

Framing

- New **Framing Groups** produce separate floor and ceiling platforms for rooms in as-built and addition areas.
- New **Build Framing for Selected Object(s)**  edit tool generates floor framing room a selected room.

- The Fill Style for a header can now be specified for plan view as well as Wall Details.
- The COMPONENTS, OBJECT INFORMATION, and SCHEDULE panels were added to the **Framing Specification** dialog.



Trusses

- The COMPONENTS, OBJECT INFORMATION, and SCHEDULE panels were added to the **Truss Specification** dialogs.

Trim and Moldings

- New **Auto Offset** option for moldings assigned to objects.
- New **Rotate Profile** option for molding profiles assigned to objects.
- New **Make Copy** option for moldings assigned to objects.
- The **Molding Polyline** and **3D Molding Polyline Specification** dialogs now have the COMPONENTS panel.


The Library

- New **Find Original in Library**  edit tool lets you select an object in your plan and find it in the library.
- The **Select Library Object** dialog now opens to the location of the selected object when the **Replace from Library**  tool is used.

Custom Symbols

- Symbols can no longer be assigned to a “Cabinet” category when imported into the program.
- The **Symbol Name** can now be specified in the **Convert to Symbol** dialog.
- The **Default Light Offset** setting was removed from the **Symbol Specification** dialog for symbols as they were imported.


Architectural Blocks

- The **Add to Library As**  edit tool is now available for architectural blocks.

Other Objects

- The shapes of Polyline Solid and 3D Box edges are now editable in all views.



3D Views

- New **Display Openings Independent of Walls and Roofs** option lets you display doors, windows, and skylights in 3D views when their containing wall or roof is not shown: for example, in Framing Overviews.
- New **Hide Camera-Facing Exterior Walls**  option allows you to view the interior rooms of a structure while rotating around the exterior.
- Views can now be navigated using a gamepad.
- Camera and cross section/elevation views now have **Selected Defaults** settings in their specification dialogs.
- The **Camera Bumps Off Walls** setting is now off by default in installed template files.
- The deprecated Perspective Crop Mode has been removed from the program’s menu and toolbars.
- New options for updating lighting both automatically and on demand.

3D Rendering and Ray Tracing

- New **Light Sources** options let you specify a Light Set for use in ray tracing.



Pictures, Images, and Walkthroughs

- The **Point to Point Resize**  edit tool now has a **Retain Aspect Ratio** option.
- Improved feedback using the **Point to Point Resize**  edit tool.




Importing and Exporting

- Added support for AutoCAD® 2018/2019/2020 file import and export.

Plants and Sprinklers

- The COMPONENTS panel is now available in the specification dialog for Sprinkler Lines  and Sprinkler Splines .

Materials List

- Improved **Materials List Polyline**  can now calculate materials for multiple floors and have labels.
- **Materials List Polyline**  and **Calculate from Area**  marquees now have a defaults

dialog.

- A saved Materials List can now be copied.

Layout

- Multiple Layout files can now be open simultaneously.
- The Make Copy of Active Layer Set option in the **Send to Layout** dialog has been replaced by the new **Link Saved Plan View** check box.
- Layout pages can now be duplicated.

- The obsolete Show Layout tool was removed from the program.
- The deprecated Merge Generated Lines setting was removed from the **Send to Layout** dialog.

Ruby in Chief Architect

- New Ruby Measurements and NumberFormatter classes.
- New Name-Value Pairs for cabinets, doors and windows.