What's New in Chief Architect X6

Welcome to Chief Architect X6. This guide has been written to help our upgrading customers make a smooth transition from earlier versions of Chief Architect to Chief Architect X6.

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Before You Begin

There are many new features in Chief Architect X6, and many existing features have changed. These changes affect the way Chief Architect functions, so it is very important to be familiar with them.

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Chief Architect X6 can open the **.plan**, **.layout**, **.PL1**, and **.LA1** files from prior versions. 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. For details, see For Files Created in Version X3 and Prior on page 4, For Files Created in Version X2 and Prior on page 5.

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.

Getting Started Check List

The following checklist suggests steps you should take before migrating your files to Chief Architect X6. More information about each of these steps can be found after the checklist.

- ▢ 1. Check for and Install Program Updates
- ▢ 2. Migrate Legacy Library Files
- ▢ 3. Migrate Custom Graphics Files
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1. **Check for and Install Program Updates**

Program updates contain improvements to the original release version and we recommend using the most current version available. By default, Chief Architect checks for program updates every day when you launch the program. Please note that program updates are available for download, which means that you need internet access to acquire them.

You can check for updates at any time:

- Select **Help> Download Program Updates** from the menu.
- Visit the Program Updates page on the Chief Architect Web site at www.chiefarchitect.com.

2. **Migrate Legacy Library Files**

Library content from previous program versions cannot be installed or copied into the Chief Architect X6 library. If you upgraded from version X1 or later and have custom library content on your computer from that program version, the program installer will locate it and ask if you want to migrate it into the Chief Architect X6 library.

You can import library files from versions X1 through X4 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.

3. Migrate Custom Graphics Files

If you have custom graphics files, including textures, images or backdrops, that you were using in a previous program version, you can copy them manually using Windows Explorer for use in Chief Architect X6.

- Copy custom texture files to the Chief Architect X6 Textures folder located in the Chief Architect X6 Data folder.
- Copy custom image files to your Chief Architect X6 Images folder located in the Chief Architect X6 Data folder.
- Copy custom backdrop files to your Chief Architect X6 Backdrops folder located in the Chief Architect X6 Data folder.

In Chief Architect X5 through X1, custom graphics were saved in the Chief Architect Data folder, as they are in version X6. In version 10 and prior, 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.

4. **Review the New Features List**

There are a number of important reasons why you should familiarize yourself with the new and improved features in Chief Architect X6:

- 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 6.

5. **Review Your Preferences Settings**

Any changes that you made to the Preferences settings in your previous version do not migrate into Chief Architect X6. You should review all the settings in the **Preferences** dialog to make sure that they are set to suit your drawing needs.

6. **Create new custom Template Plan and Layout files**

Chief Architect X6 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. For best results, it is recommended that you either:

- Use the installed templates when creating new plans and layout files in Chief Architect X6
- 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 X6. First, make copies of your custom templates in the Chief Architect X6 The Templates directory is located in the Chief Architect X6 Data folder in Windows Explorer. 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 X6 and that their line weight scales do not conflict with those in your template plans.

7. **Set up Custom Toolbar Configurations**

It is possible to migrate toolbar configuration files from previous versions to Chief Architect X6; however, it is not recommended because it is likely that you will be missing new tools available in version X6.

Instead, we recommend that you set up your custom toolbars the way you would like them in Chief Architect X6. You may find it most effective to customize your toolbars as you get used to working in the new program version, rather than beforehand.

8. Backup Entire Plan

Before migrating a legacy file created in Chief Architect X5 or prior, it is a good idea to open the plan in the program version in which is was created and use the Backup Entire Plan tool (Export Entire Plan in version X3 and prior) to export the plan with all associated support files, including textures, backdrops and images.

9. Check www.chiefarchitect.com for more information

If you have additional questions about the changes in Chief Architect, up to date information is available in the Support section of our web site. You can also post questions on the Chief Talk web forum at www.chieftalk.com.

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 before you open legacy files in Chief Architect X6.

☐ 1. **Named Values for Doors and Windows**

In Version X6, the Named Values 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 Named Values in legacy plans opened in Version X6 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 before you open legacy files in Chief Architect X6.

☐ 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, they are measured to the outside of the fascia or shadow boards, if present. In legacy plans opened in Version X5, 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 X5 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 X6. 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 X6, 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 X6, 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 X6.

☐ **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 X6, 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. Invisible Beams**

The legacy **Invisible Beam** checkbox was removed from the **Wall Specification** dialog. When legacy plans are opened in Version X6, 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 before you open legacy files in Chief Architect X6.

☐ 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 X6.

☐ **2. Light Sources**

The illumination created by light fixtures and Added Lights was improved in Chief Architect X6. Lighting in legacy plans may appear noticeably brighter when viewed in version X6.

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 before you open legacy files in Chief Architect X6.

☐ 1. **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 X6 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 X6. This tool is renamed Backup Entire Plan in version X6.

☐ 2. **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.

☐ 3. **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 X6.

☐ 4. **Auto Adjust Height**

The Follow Terrain option in some specification dialogs was replaced by the Auto Adjust Height checkbox. 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.

☐ 5. **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 X6 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.

☐ 6. **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 X6. 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.

☐ 7. **Deck rooms**

In legacy plans opened in Chief Architect X6, 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.

☐ 8. **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 X6.

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).

☐ 9. **Structural Member Reporting**

When a plan created in Chief Architect X2 or prior is opened in Chief Architect X6, 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.

☐ 10. **Fill New Framing Members**

In Chief Architect X2 and prior, Fill New Framing Members was view-specific; in Chief Architect X6 it applies to the entire plan. As a result, it is turned off by default in legacy plans opened in version X6.

New and Improved Features

The following is a list of new and improved features in Chief Architect Version X6.

Installation

- License deactivation can now be accomplished online.

Program Overview

- Tabbed dialogs have been replaced with dialogs with panels.
- Redesigned dialog panels feature vertically columns of settings divided by horizontal headings for greater ease of use.
- Object previews in specification dialogs can now be resized, rotated, and zoomed. Multiple Rendering Techniques can be used, as well.
- Scroll bars can be turned on/off in any view.
- New **View** menu.
- The program's Help is now always contextual: it will try to launch the page associated with the active tool.

File Management

- The recent file list was moved to the **File> Open Recent File** submenu.

Preferences and Default Settings

- New **Active Defaults** dialog allows you to view and modify your currently active Saved Defaults.
- The **Active Annotation Set** drop-down was removed from the **Annotation Sets** dialog.
- "Modified" Annotation Sets are no longer described as such to avoid confusion.
- Annotation Sets and their Saved Defaults are now view-specific and retained with saved views.
- New **Open Dialogs to the Last Panel Visited** setting in the **Preferences** dialog.
- All settings in the **General Plan Defaults** dialog are now applied file-wide rather than being view-specific.
- The **Living Area To** settings were moved from the **Floor 1 Defaults** dialog to the **General Plan Defaults** dialog.
- New **2D Zoom and Panning Optimizations** option in the **Preferences** dialog.
- All **Reset** options are now found on the Reset Options panel of the **Preferences** dialog.
- The Text and Page Setup panel of the **Preferences** dialog was renamed the Text panel.
- Legacy Plan and Layout Page Setup options were removed from the **Preferences** dialog.
- The **Fixture/Furniture Resize Enable** setting was removed from the **General Plan Defaults** dialog.
- Obsolete **Double Buffer Drawing** settings was removed from the **Preferences** dialog.
- Obsolete **Hardware Culling**, **OpenGL Vector View** and **Surface Backdrop** settings were removed from the **Preferences** dialog.

Toolbars and Hotkeys

- Improved **Toolbar Customization** dialog includes a searchable button list and table showing toolbar names and the views in which each is active.
- The **Lock Toolbars** setting has been moved from the **Toolbar Customization** dialog to the **Tools** menu and also has a toolbar button that can be added to the toolbars.
- Undocked toolbars can no longer be resized.
- Can now create custom keyboard hotkey sequences to activate tools.

Layers

- New **Name Filter** in the **Layer Display Options** dialog.
- Removed the **Current CAD Layer** setting from the **Layer Display Options** dialog to reduce confusion.
- Improved feedback in the **Layer Display Options** dialog shows which column is being used to sort the table and in which order it is sorted.

Creating Objects

Editing Objects

- Removed the obsolete **Accurate Move** edit tool.
- The **Center Object** edit tool is now available for use in layout

Walls, Railings, and Fencing

- Invisible Wall tool replaced by the new **Room Divider** tool.
- New **Edit Wall Layer Intersections** edit tool provides control of how individual wall layers build at intersections.
- Can now specify multiple Main Layers for a single wall type.
- **Add to Library** tool can now be used to add walls to the library for future use in other plans.
- New **Energy Values** settings for wall types, which are used when exporting to REScheck.
- New **Hang Floor Platform Above on Wall** specifications.
- New **Bearing Wall** specification produces joists that either lap or butt over the selected wall.
- Improved feedback when a wall connection problem is present in a plan.
- Increased flexibility displaying upper and lower pony walls in views sent to layout.
- Automatically generated Attic Walls now become **Invisible** if deleted while **Auto Rebuild Attic Walls** is on.
- New **Wall Material Regions** let you replace finish layers of walls with custom material layers.

Rooms

- New **Conditioned Area** settings for rooms which are used when exporting to REScheck.
- New **Energy Values** settings for floor and ceiling platform definitions, which are used when exporting to REScheck.
- New **Floor Material Regions** let you replace finish layers of floors with custom material layers.
- New **Display as Uppercase** checkbox for room labels.

Doors and Windows

- Door and doorway jambs are now drawn in floor plan view.
- New Jamb panel in the **Door Specification** dialog.
- New Frame panel in the **Window Specification** dialog.
- New **Has Frame** checkbox and increased maximum window **Frame Depth**.
- New Framing panel in the **Door** and **Window Specification** dialogs with new **Headers**, **Trimmers**, and **Sill** settings.
- New **Include Header** option lets you omit headers for individual doors - such as interior doors.
- New **Energy Values** panel and settings settings for doors and windows, which are used when exporting to REScheck.
- Can now specify a window's **Floor to Bottom** height as well as its Floor to Top.
- New Options and Materials panels in the **Bay/Box** and **Bow Window Specification** dialogs.
- New **Size, Ceiling**, and **Floor** settings for Bay, Box, and Bow Windows.
- Inproved usability of settings controlling movable window components.
- Inproved usability of settings controlling number of lites.
- New **Separate Trim and Materials on Each Side** option lets you specify the appearance of each side of interior doors and **Pass-Throughs** differently.
- Door and window louvers are now two-sided and can have separate interior and exterior materials.

- New “Glass Louver”, or jalousie, **Type** for doors and windows.
- New **Hardware on Fixed Section** option for Doors.
- New **Fire Door** setting and Column to Include in Door Schedules.
- **Tempered Glass** setting is now available for all door types except doorways.
- Can now specify the **Number of Hinges** assigned to a selected door.
- Can now select a shutter style from the library and specify custom shutter **Offset** values.
- Can now specify shutters for doors.
- New “Custom” window type for window symbols.
- Can now specify custom CAD block to represent window symbols in floor plan view.
- To reduce confusion, the settings for editing panel and glass door frames were moved to the General panel of the **Door Specification** dialog.
- Sliding glass doors included in Window Schedules are now listed as **Egress**.

Multiple Floors

- New **Step floor/ceiling elevations to match existing floor** checkbox maintains the floor and ceiling heights on the existing floors when a new floor is created.

Foundations

Roofs

- Can now specify roof **Pitch in Degrees** from -89° to 89°.
- When a roof plane is deleted, any roof framing associated with it is also deleted.
- New **Retain Roof Framing** checkbox in the **Roof Plane Specification** dialog prevents a roof plane’s framing from being replaced when framing is regenerated.
- Can now choose whether to **Include Ridge Caps** on Auto Roof Returns.

Stairs, Ramps, and Landings

- Decreased the minimum **Width** for stairs and ramps to 2” (50 mm).

Framing

- Twelve new default layers for framing objects, including “Framing, Posts” and “Framing, Sill Plates”.
- New **Build Framing for Selected Object(s)** edit tool for walls, roof planes, and ceiling planes.
- Settings on Headers panel of the **Build Framing** dialog were moved to the Openings panel of the dialog and to the **Door** and **Window Specification** dialogs. Header size and count can now be specified per door or window, and maximum header count was increased to 10.
- The default **Header Depth** based on opening width now includes the Rough Opening value.
- The specified **Header Type** is now used when wall framing is generated as well as in the Materials List.
- The framing for **Railings** specified as **Solid** can now display in floor plan view.
- Can now specify the width and framing type for rim joists in the **Build Framing** dialog.
- Can now specify the default framing for **Fireplaces** in the **Build Framing** dialog.
- **Floor/Ceiling Beams** specified as **Bearing Beam** no longer need a **Bearing Line** in order to split a platform.

Trusses

- Can no longer delete the Truss Detail if there are trusses present in the current plan.

Trim and Moldings

- New **Repeat Distance** lets you modify the width of a symbol molding assigned to an object.

Cabinets

- Can now specify the material assigned to cabinet shelves.
- The width of Clipped and Rounded cabinet and countertop corners is now measured along the front of the cabinet rather than along the clipped edge.
- Increased the minimum distance between cabinets in which automatic fillers will generate in metric plans.

- New **Custom Backsplash** tool.

Other Objects

- New floor and wall **Material Regions** let you replace finish layers of walls and floors with custom material layers.
- The individual edges of **Face** objects can be aligned using the **Make Parallel/Perpendicular** edit tool.

Architectural Blocks

- New Display and Size/Position settings in the **Architectural Block Specification** dialog.
- Display of sub-objects in plan view is no longer tied to their inclusion in schedules and the materials list.

The Library

- New **Retain Aspect Ratio** option for fixtures, furnishings, and other symbol objects.

View and Window Tools

- Multiple view windows are now tabbed at the top.
- View windows can now be torn out of the main program window.
- The Cascade and Arrange Icons options for displaying view windows were removed.

3D Views

- The **Color** toggle is now available in all Rendering Techniques.
- New **Position** options for camera callouts.
- If a cross section/elevation view has been sent to layout, the new **Automatic** option populate's the view's callout with the name of the layout page.

Rendering and Ray Tracing

- New panel in the **Ray Trace Options** dialog lets you set the initial values for **Image Properties**.
- Shadows in 3D views now generate significantly more quickly.

Text, Callouts, and Markers

- Can now specify a **Prefix** and **Suffix** for the number or letter at the beginning of list paragraphs in **Rich Text** .
- The **Numbering Start at** setting was removed from the **Paragraph Options** dialog.
- Undo and Redo are now available in the contextual menu in the **Rich Text Specification** dialog.
- Text macros can now be inserted into **Callouts** and **Markers** .
- Can no longer specify the size of bullets in **Rich Text**.
- The **Printed Size Input** dialog was renamed **Print Size Calculator**.
- New **Replace Fonts** dialog.

CAD Objects

- Enhanced settings in **New CAD Arc** dialog.

Project Management

- New **Clear Form** buttons in the **Designer Information** and **Client Information** dialogs.

Pictures, Images, and Walkthroughs

- **Screen Capture** tool is now easier to use: simply click and drag a marquee.
- The **Screen Capture Setup** dialognow remains open after you click **Capture**, allowing you to create multiple captures more easily.
- Imported pictures, metafiles, and PDF files can now be cropped using the edit handles.

Importing and Exporting

- New **Export to REScheck** tool exports information about a plan's thermal envelope to REScheck (**.rxl**) file format.
- Can now import and export 3D symbols from and to the COLLADA (**.dae**) file format.
- Can now import and export 3D symbols from and to the stereolithography (**.StL**) file format.
- The Import Drawing Wizard was renamed **Import Drawing Assistant**.

Printing and Plotting

- Can now save any view as a PDF, even if no PDF writer is installed.
- The Page Setup and Print dialogs were renamed **Drawing Sheet Setup** and **Print View**, respectively.

- Can now specify the **Margins** of the drawing sheet.
- Redesigned **Print View** dialog includes a scrollable, zoomable print preview and DPI setting.
- Improved ability to include and exclude specific layout pages as the Print Range.
- Page breaks no longer display in either the **Drawing Sheet Setup** dialog or when **Print Preview** or **Drawing Sheet** are enabled.
- Line Styles assigned to object surface edges and patterns are now maintained when Vector Views are printed.
- Obsolete **Double Buffered Printing**, **Line Weight**, and **Height** and **Width Correction** settings removed from **Print View** dialog.
- **Use These Settings When Converting Old Files** settings removed from the **Drawing Sheet View** dialog.
- **Print to File** option removed from the **Print View** dialog.

Layout

- New **Layout Page Table** tool lets you create layout tables of contents.
- New **Layout Revison Table** tool lets you create revision tables.
- Can now create multiple layout Page Templates and assign them to the pages of your choice.
- Can now create custom layout page numbering conventions.
- Can now delete pages from a layout when they have content on them.
- Can now insert layout pages both before and after the current page.
- Can now insert pages into and delete them from a layout using the contextual menu in the Project Browser.
- Can now specify the floor number shown and the Annotation Set used in a floor plan view sent to layout in the **Layout Box Specification** dialog.
- Line Styles are now maintained when Vector Views are sent to layout.
- Improved **Edit Layout Lines** tool.
- Removed **Highlight Weight** settings from the **Layout Line Specification** dialog.
- If a cross section/elevation view has been sent to layout, the new **Automatic Text Below Line** option populates the view's callout with the layout page's Label.
- Can now specify the drawing order for the Reference Plan Display in views sent to layout.

Schedules and Object Labels

- New **Move Row** and **Move Column** edit handles let you change the order of objects and the columns in schedules .
- New **Move Down in Schedule** and **Move Up in Schedule** edit tools let you move a selected object's position in a schedule.
- Schedule columns can now be renamed in the **Schedule Specification** and **Defaults** dialogs.
- Can now choose whether to display a schedule's column headings as well as whether to use uppercase text.
- New **Group Similar Objects** option lets you choose whether to display similar objects as one line item or separately.
- Fixtures and appliances set into cabinets can now display callout labels associated with a Fixture Schedule.
- New "Custom" Window Type for garden windows and other window symbols.
- Can now create separate schedules for Interior and Exterior Doors.
- New **Columns to Include** for door, window, cabinet, and electrical schedules.
- Objects included in more than one schedule can now display multiple callout labels.
- All objects now derive their schedule Descriptions from the **Components** dialog.
- New "Totals" row at the bottom of Door and Window Schedules that include an Area column.
- Hinge Side and Swing can now be included in Door Schedules.

Materials Lists

- The ability to export Materials Lists to **.xls** file format was replaced by export to more flexible **.xml** format.
- Column headings are now included when a Materials List is printed.

- Heated Area descriptions were replaced by Thermal Envelope, and are calculated with greater accuracy.
- Can now generate a Materials List while a camera view is active.
- Obsolete **Export Version 8 Columns Only** was removed from the **Materials List Export** dialog.

Ruby Console

- Some named values were shortened.