New Feature List



### **Productivity**

- Undo History. Turn on the Action History window to interact with the list of commands and actions that have occurred. Perform multiple undos/redos at once by navigating the Action History list.
- Layer Painter Customization. When using the layer painter tool, copy, add, edit, and delete layers to manage them as you work. Use 'Set to Default' to reassign an object to its default layer.
- Auto-Numbering for Construction Lines. Use automatic ordering to set up sequential labeling for construction line callouts. Define different rules for individual sets of construction lines.
- Capture View to Clipboard. Use this button or assign a hotkey to create a screen capture of the active view that can be pasted into other applications.
- Reset Saved Camera. In a modified 3D view, use the reset camera options for 'Position' or 'All' settings to update the view to its previously saved state.
- Concentric Resize Edit Tool. Choose the Concentric Resize tool from an object's Edit Toolbar to make concentric jump modifications to the item.
- · Delete Dimension Tool. Quickly delete all dimensions in an active view with this dimension toolbar button.
- Convert Polyline to Terrain Curb/Wall. Use an edit tool to convert CAD to Terrain Curbs or Terrain Walls.
- Reflect About Angle Centers. The Reflect About tool will locate the corners of walls, CAD, and other objects so you can easily select Angle Centers.
- Merge Line Styles. Use the merge tool to manage and condense your plan's line style references.
- Convert Text to Notes. Use the Convert to Note edit tool to turn Text and Rich Text objects into Note objects.
- Find in Plan by Layer. Quickly select all objects on a given layer using the Active Layer Display Options (ALDO) dialog.
- Find Schedule from Object. Quickly locate a schedule in which an object is referenced using the "Find Schedule" edit tool.
- Add Schedules to Library. Configure schedules to suit your needs, then save them in the library browser for reuse and future editing. Add schedules to the library directly from Project Browser.
- Toolbar Feature Search. Add the search bar to your toolbars to quickly search for tool controls and functions.

**New Feature List** 



### Design

- Space Planner Room Boxes. Use the polyline-based Room Boxes of the Space Planner tools to customize room shapes and junctions. Controls for snapping and room overlap help make spatial design easier.
- Railing Newel Spacing. Set automatic newel spacing as From Start, From End, Centered Between Ends, or Equally Spaced using maximum on-center values.
- Railing Newel Positioning. Use edit tools and dimensions to locate and offset newel posts manually. Add new posts and delete existing ones.
- Add Stairs and Ramps to the Library. Save preconfigured stair and ramp sections to the library browser. Click to place a copy into your design. Click and drag to draw a new variation using the style and settings from the library version.
- Corner Shelves. Similar to placing a corner cabinet, hover the shelf tool into a corner to create a corner-wrapping shelf.

#### **Building Construction**

- · Build Framing Panel. Choose to generate all or a subset of automatic framing from the Build Framing Panel.
- Flat Header. Specify rotated header framing members so the flat side is parallel with the ceiling, useful for non-loadbearing walls.
- Truss Direction Line. Girder Truss Line and Roof Truss Direction Line tools control where trusses are generated and in what direction.
- Custom Framing Types. Add, remove, or modify framing material associated with framing materials. Define material composition (like wood, steel, or concrete) and shape (rectangular, rounded, I, C, U).
- Deck Beam Controls. Define spacing, offsets, and generation of automatically generated deck beams through the Deck Specification and Framing dialogs. Choose whether beams are placed under or in line with joists.
- Deck Plank Blocking. Automatic framing includes blocking under border planks.

New Feature List



#### Presentation

- Dimensions in 3D Views. Add and edit dimensions in camera views. Control their orientation and snap to designate planes in the view. Manage dimensions and edit objects as you do in plan and elevation views.
- Dimension Leader Lines. Set up automatic leader lines for dimensions when there isn't space for the value to fit between extension lines. Choose from various style defaults and manually edit leader lines to customize the look.
- Cross Section Slider for Any Camera View. Use the Cross Section Slider in orthographic and vector views, along with other rendering techniques and view types.
- · Poché Fill. Turn on solid fill for walls, roofs, and platforms in plan and camera views.
- HDR Backdrops. Leverage High Dynamic Range (HDR) images for backdrops to contribute environment lighting effects to scenes and material previews.
- HDR Image Export. Export images suitable for post-processing in HDR format.
- Path Traced Renderings. Enhanced Physically Based Ray Tracing uses path-tracing technology, resulting in more realistic lighting and shadow effects. Physically Based Ray Tracing is compatible with Mac OS.
- Emissive Area Lighting. Use Emissive material properties to contribute light to PBR Ray Traced scenes. Surfaces that are assigned materials with emissivity will glow and add brightness to your 3D Views. Ideal for rope lights, tube lights, and object surfaces where lighting diffuses over a large area. Emissive materials can also be attached to light bulb surfaces and replace light source values in the Electrical Specification Dialog.
- Translucent Materials. Use Translucent material properties in PBR Ray Traced views for light shades, curtains, and other materials that allow light to pass through.
- Clear Coat Material Property. Define a clear coat on materials to create a glossy or built-up sheen. Specify roughness values and attach Roughness and Normal Maps separately for the clear layer.
- Material Maps. Enhance material definitions using custom maps, like Normal, Ambient Occlusion, Metal,
  Roughness, and now Gloss, Transparency, and Opacity maps. Use the Invert option for Roughness maps to
  represent Gloss. Mix combinations of maps to control various effects like metallic, translucent, and
  transparent on a single material.
- Toggle ON/OFF Hand Drawn Lines. Use an edit tool to show line drawing over top rendering techniques.
- PBR Watercolors. Apply the Watercolor rendering technique to PBR views.

**New Feature List** 



### Drafting / Project Management

- Copy CAD Details Between Plans. Duplicate CAD Details from one project and add them to another using Copy/Paste tools in the Project Browser. Set up templates to include your favorite CAD Details.
- Wall Assembly Layers. Assign parts of wall assemblies to their own layers (siding, for example). Control the line color and style By Layer, and turn the display of these layers ON or OFF in plan views and camera views.
- Include Totals in Schedules. Specify which column to include totaled values. Custom columns and fields can calculate totals and have number formatting.
- · Schedule Row Alignment. Set the formatting for schedule rows as justified at the top, center, or bottom.
- Include Ceiling Planes in Schedules. Report details regarding custom ceiling planes in schedules alongside roof planes.
- · Include 3D Solids in Schedules.
- Schedules Include Objects from Multiple Rooms. Specify that objects from multiple rooms are included in a schedule by multi-selecting from the room list in the schedule specification dialog.
- Define Number Fields in the Object Information Panel. Set up custom columns for schedules in the OIP and specify values as numerical using the "Format as Number" setting.
- Object Information Panel for Rooms. Manage custom data relating to rooms using the OIP. Set up default Object Information in Floor Defaults.
- Electrical Connection Defaults. Set up default behaviors for electrical connections, like arc curvature.
- Electrical Connections for Fixtures. Create electrical designs where Electrical Connections map fixtures and other non-electrical objects.