Revailo Masonry Estimator

V1.3.6

Revised October 13, 2025

User Manual

Table of Contents

Introduction

Welcome to the Revailo user guide. We hope you find everything you need to know about our software in this manual.

Revailo was originally created to assist masonry estimators at Chicago Masonry Construction, and its development has been closely guided by their expertise. While primarily designed for masonry estimators, we hope it will be useful to a wider audience.

We encourage you to share your feedback through our website—it helps us continually improve our software.

About the software

This software is a Python program available on Windows 10 and 11 (MacOS coming soon) and includes AWS cloud services for analyzing, saving, and collaborating easily. It has been entirely developed by our team at Revailo.

Minimum system requirements

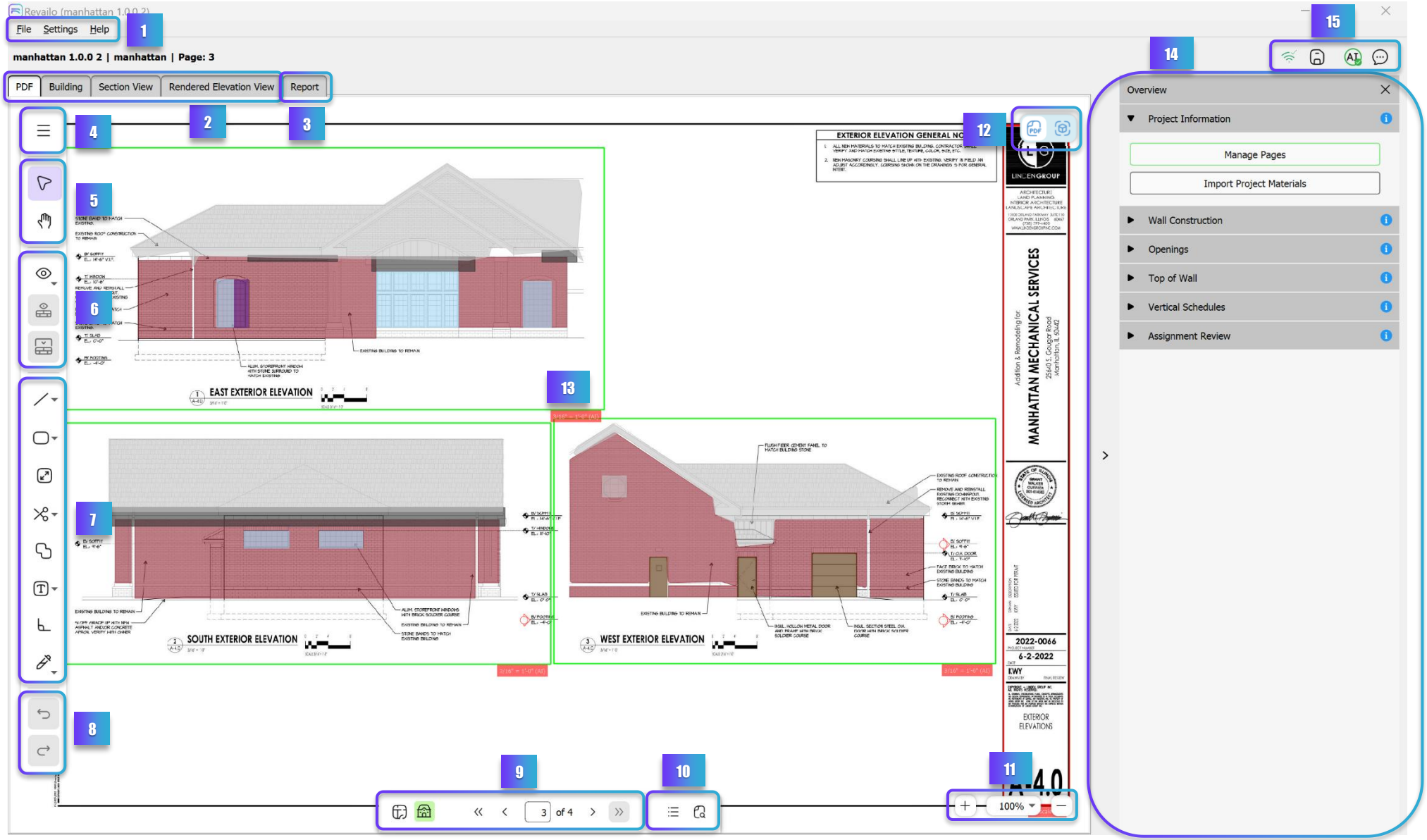
Windows system:

- Operating system: Windows 11 (recommended), Windows 10
- Architecture: 64-bit
- Storage: 2GB for the software and cache
- Memory: 16GB of RAM (32GB or more recommended)
- CPU: Intel i7 12th gen (i9 or more recent recommended)
- 4 GB GPU (dedicated GPU recommended, e.g. NVIDIA RTX 4050)
- 1920 x 1080 screen resolution

MacOS system (coming soon)

Overview

Click on any number to be redirected to a detailed description of the element.



Legend

1 Menu bar

2 Tab selection – Visualization tabs

3 Tab selection – Report tab

4 Building tool

5 Cursor mode

6 Visibility tools

7 Drawing tools

8 Undo/Redo

9 Navigation section

10 Table of contents/Search documents

11 Zoom tools

12 PDF/3D switch button

13 Main view

14 Side panel

15 Top toolbar

Getting Started

Account setup

To get started with *Revailo*, first sign up for an account on *revailo.com*. We will ask you to set up your profile, choose a payment method and accept our terms and conditions. Once this is done, you will have access to your profile on our website, where you can update your settings, add users to your organization, and most importantly download our software. Click on the latest version that corresponds to your computer distribution to start downloading.

IMPORTANT: If your browser blocks the download of the software, please click “Show More”, then “Report this app as safe” (this step is optional but helps us build trust among users). After that, select “Keep anyway” to continue the download.

Install the software

After downloading, click the file (.exe) to begin installation. You may need administrator permission to proceed. Follow the installation wizard to configure your preferences, such as creating a desktop shortcut. Once complete, you can find the software in the selected destination folder, along with an uninstall file.

IMPORTANT: If you see a "Windows protected your PC" message, click "More info," verify that the publisher is **CMC Tech LLC**, and select "Run anyway."

Run the software

You can now run Revailo on your computer. Launch the software, log in using the same email and password as on the website and create a new project (File > New Project). Once the project loads, you're ready to begin.

If this isn't your first time using the software, your most recent project will open automatically.

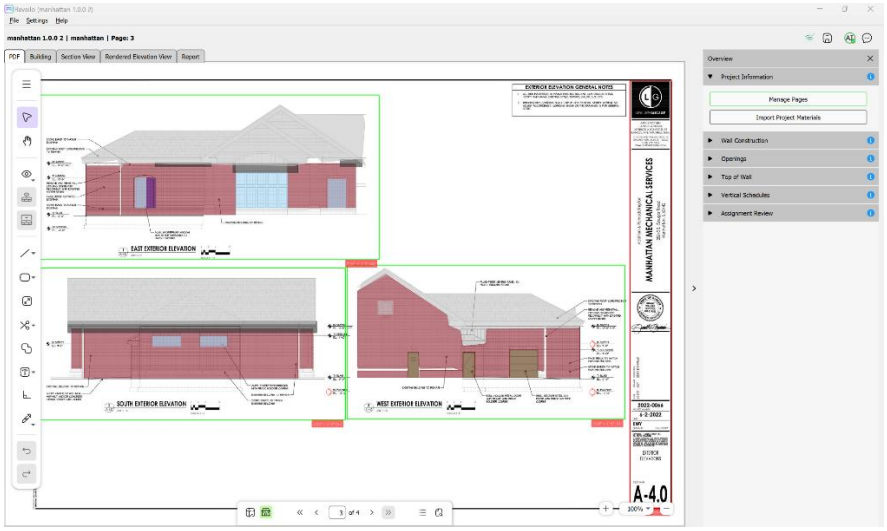
AI Analysis

After creating a new project, our AI will automatically begin analyzing your documents. You can wait a few minutes for the results or start setting up your project while the analysis is ongoing. For more details on the AI analysis process, refer to the dedicated section of this manual.

Visualization

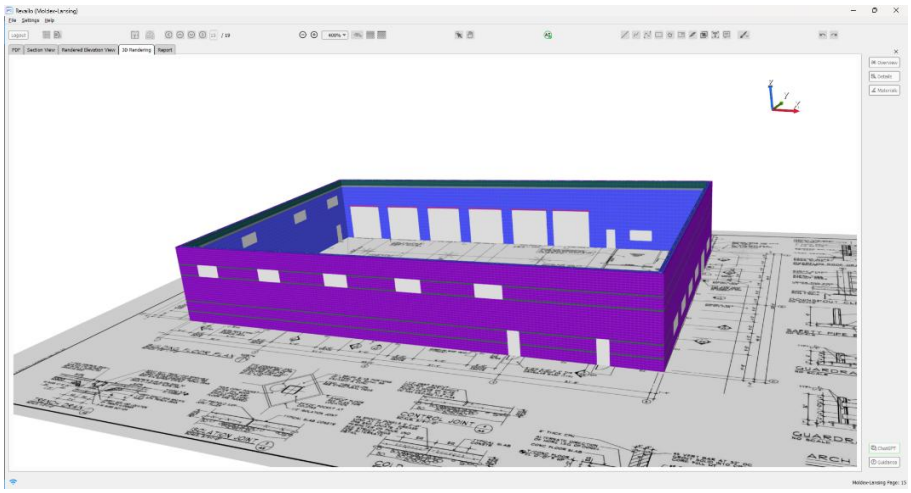
PDF Tab

PDF 2D View



The PDF tab is the main tab of the program. You can view your documents and any annotations they contain, whether generated by AI or manually added. To keep your document visible, you can split the tabs into a new window or a split view by right-clicking on the PDF tab bar.

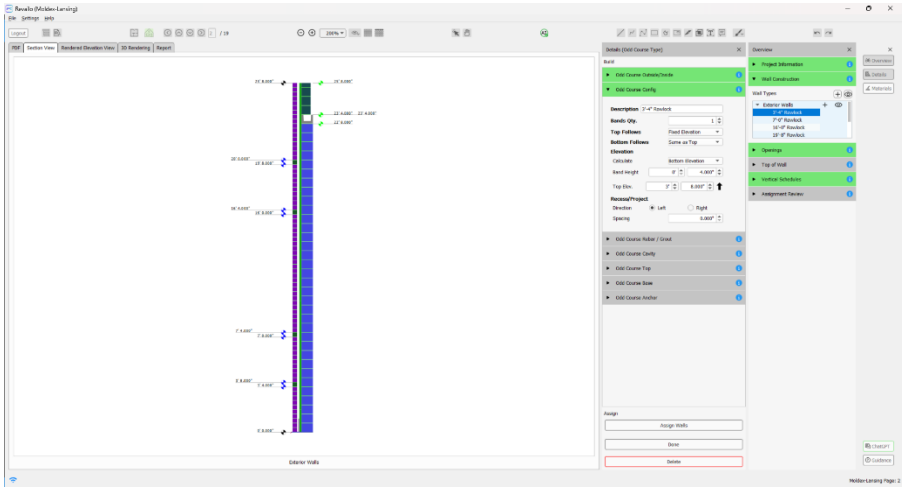
PDF 3D Rendering



The PDF tab also includes 3D rendering for pages selected as Floor Plans. To see the 3D rendering of a floor plan, go to the corresponding PDF page and toggle the button  at the top right corner of the page.

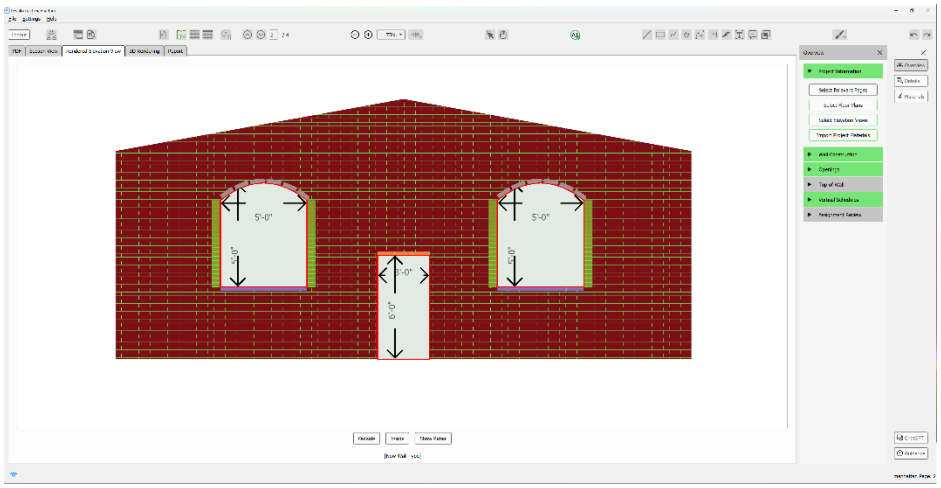
This shows a 3D view of the construction. You can view and interact with the inner and outer sides of each wall, openings, control joints, and rebar. Moving, adding, deleting and assigning will also be reflected in the Details Tab. The interactions are enabled based on the mode the user selects.

Section View Tab



The Section View tab displays a cross-section of Wall Types and Opening Types, allowing you to review your work as you construct them. If your document includes a section view diagram for a Wall Type or Opening Type, you can use this tab to visually confirm details, such as height, base elevation, odd course positions, and material placements. As you edit the Material Type in the Details tab, the view updates automatically.

Elevation View Tab



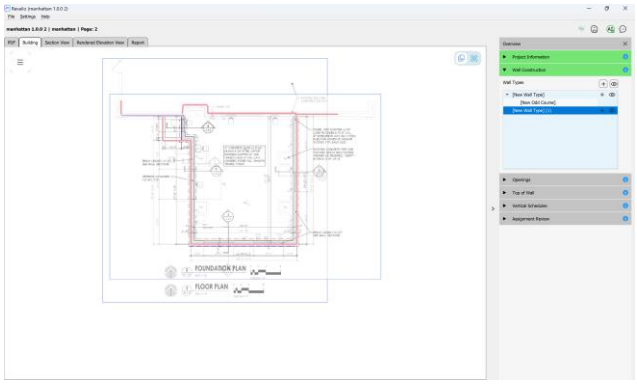
The Elevation View tab displays an 2D projection of an individual wall, allowing you to view both sides if a Wall Type has been assigned. You can view, add, and adjust

openings in the wall, and edit vertical schedules. The view updates automatically as you edit Wall Types and Opening Types in the Details tab.

Building Tab

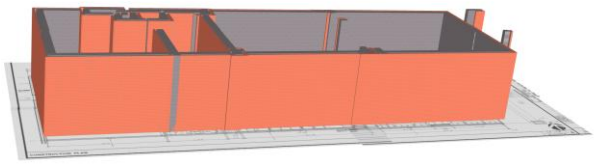
The Building tab is a review tool that helps visualize your complete building in 3D. It enables the easy creation of multi-floor buildings and split buildings (where the floor plan is divided across multiple zones of the PDF).

Building 2D View



This view displays all floor plan regions in the app, allowing you to align them correctly and generate a clear 3D view of the entire building. To view the 3D rendering, toggle the button in the top-right corner of the page.

Building 3D Rendering



Here, you can visualize your combined building in 3D. It works similarly to the PDF 3D rendering but includes multiple aligned floor plan zones simultaneously.

Report

	Class	ID	Description	Amount	Quantity	Waste	Final Total Qty.	Group Size	Ordered	Price	Tax	Final Total Cost
	BRI	C	Closure Brick	167.85 SqFt	755.33 Bricks	0.00%	755.33 Bricks	200.00 / Cube	756.0 Bricks	$0.47 / Brick	8.00%	$383.75
	BRI	ECON1	Economy Brick	24.82 SqFt	81.69 Bricks	0.00%	81.69 Bricks	0.00 / Cube	82.0 Bricks	$0.00 / Brick	8.00%	$0.0
	CMU	HW06B	6" Heavyweight CMU-Bull	149.70 SqFt	168.41 Blocks	0.00%	168.41 Blocks	135.00 / Strap	169.0 Blocks	$0.58 / Block	8.00%	$105.86
	CMU	HW06BB	6" Heavyweight CMU-B.B.	22.13 SqFt	24.9 Blocks	0.00%	24.9 Blocks	135.00 / Strap	25.0 Blocks	$0.58 / Block	8.00%	$15.66
	LIL	2X5SILL	2-1/4 x 5 Sills L.F.	18.54 LiFt	4.63 Pieces	0.00%	4.63 Pieces	110.00 / Strap	5.0 Pieces	$2.75 / Piece	8.00%	$14.85
	MOR	MORTAR	Collar/Parging Mortar	12.41 CuFt	12.41 CuFt	0.00%	12.41 CuFt	0.00 / Bag	13.0 CuFt	$2.15 / CuFt	8.00%	$30.19
	GRO	2500PSI	2500 PSI Grout in Cu.Ft.	22.61 CuFt	22.61 CuFt	0.00%	22.61 CuFt	0.00 / Bag	23.0 CuFt	$2.75 / CuFt	8.00%	$68.31
	REB	#4	#4 Rebar	234.00 LiFt	234.0 LiFt	0.00%	234.0 LiFt	0.00 / Bundle	234.0 LiFt	$0.24 / LiFt	8.00%	$60.65
	REB	#5	#5 Rebar	60.00 LiFt	60.0 LiFt	0.00%	60.0 LiFt	0.00 / Bundle	60.0 LiFt	$0.35 / LiFt	8.00%	$22.68
	RES	#4SPIDER	# 4 Spiders	396.00 Positioners	396.0 Positioners	0.00%	396.0 Positioners	0.00 / Case	396.0 Positioners	$0.00 / Positioner	8.00%	$0.0
	WIR	10"LADUR	Dur-o-wal-10" Ladur ft	142.67 LiFt	142.67 LiFt	0.00%	142.67 LiFt	0.00 / Bundle	143.0 LiFt	$0.15 / LiFt	8.00%	$23.17
	ANC	ANCHORB	Anchor Bolt	56.38 Anchors	56.38 Anchors	0.00%	56.38 Anchors	0.00 / Box	57.0 Anchors	$0.27 / Anchor	8.00%	$16.62
	ANC	TRIANC9	9" Triangular Anchor	16.00 Anchors	16.0 Anchors	0.00%	16.0 Anchors	0.00 / Box	16.0 Anchors	$0.32 / Anchor	8.00%	$5.53
	DOW	3/8	3/8 Stainless Dowels	16.00 Dowels	16.0 Dowels	0.00%	16.0 Dowels	0.00 / Bundle	16.0 Dowels	$1.00 / Dowel	8.00%	$17.28
	FLA	CFA3OZ12"	Copper Fabric 3 oz/12"Wid	20.00 LiFt	20.0 LiFt	0.00%	20.0 LiFt	0.00 / Roll	20.0 LiFt	$1.95 / LiFt	8.00%	$42.12
	FLA	CFA3OZ18"	Copper Fabric 3 oz/18"Wid	18.54 LiFt	18.54 LiFt	0.00%	18.54 LiFt	0.00 / Roll	19.0 LiFt	$3.12 / LiFt	8.00%	$64.02
	DRI	S.S. DRIP	Stainless Steel Drip .015	20.00 LiFt	20.0 LiFt	0.00%	20.0 LiFt	0.00 / Piece	20.0 LiFt	$0.60 / LiFt	8.00%	$12.96
	DRI	COPPERDRI	Copper Drip Edge	37.08 LiFt	37.08 LiFt	0.00%	37.08 LiFt	0.00 / Piece	38.0 LiFt	$1.20 / LiFt	8.00%	$49.25
	WEL	WEEPCOTT	Cotton Weep Rope	40.00 Weeps	40.0 Weeps	0.00%	40.0 Weeps	0.00 / Box	40.0 Weeps	$0.04 / Weep	8.00%	$1.73
	MN	MN	Mortar Net	18.58 LiFt	18.58 LiFt	0.00%	18.58 LiFt	0.00 / Box	19.0 LiFt	$2.60 / LiFt	8.00%	$53.35
	INR	BLUE1"	Blue 1" Rigid Insulation	177.67 SqFt	177.67 SqFt	0.00%	177.67 SqFt	0.00 / Sheet	178.0 SqFt	$0.31 / SqFt	8.00%	$59.59
	INR	BLUE1.5"	Blue 1.5"Rigid Insulation	179.75 SqFt	179.75 SqFt	0.00%	179.75 SqFt	0.00 / Sheet	180.0 SqFt	$0.47 / SqFt	8.00%	$91.37
	FIR	FIRESAFE4	Fire Safeing 4" High x 6"	19.08 LiFt	19.08 LiFt	0.00%	19.08 LiFt	0.00 / Sheet	20.0 LiFt	$0.45 / LiFt	8.00%	$9.72
	CON	CJ	Control Joint Material	40.00 LiFt	40.0 LiFt	0.00%	40.0 LiFt	0.00 / Strip	40.0 LiFt	$1.30 / LiFt	8.00%	$56.16
	BAC	BR	Backer Rod	120.00 LiFt	120.0 LiFt	0.00%	120.0 LiFt	0.00 / Bundle	120.0 LiFt	$0.03 / LiFt	8.00%	$3.89
	CLK	CO	Caulking for outside	120.00 LiFt	120.0 LiFt	0.00%	120.0 LiFt	0.00 / Tube	120.0 LiFt	$4.00 / LiFt	8.00%	$518.4

Total Cost: $1,727.11

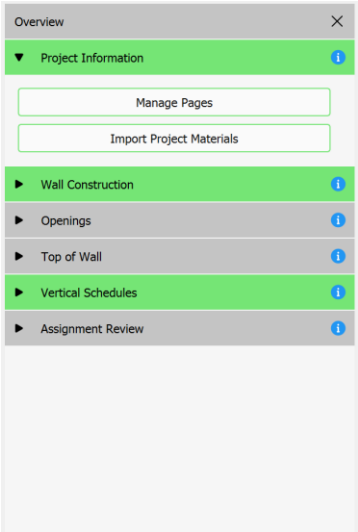
The Report tab provides detailed material and labor reports for your project. The report is customizable, allowing you to edit material specifications (e.g., waste factor, tax rate, bundles and cubes), filter Wall Types, group materials by Wall Type or specific walls, set precision, include material and labor reports, and set a global tax rate. Using annotations, their Material Type assignments, placements (considering openings and subtracting their area), and material data, we generate an accurate and detailed report.

You can adjust most columns in the materials table to match your requirements, and other columns update automatically. Changed values will turn blue to indicate they are not default values. Press Escape to reset the selected blue cell to its computed value. Once customized, the report can be exported to formats like PDF, DOCX, CSV, XLSX, and HTML.

Right-side Panel

The right-side panel is the central workflow area of the app, guiding you through building a project. This panel has an ‘x’ button to go back to the Overview, or close the panel if it is the Overview, and an arrow to go to the previous panel. You also have a toggle arrow to hide and show the panel to improve the screen space.

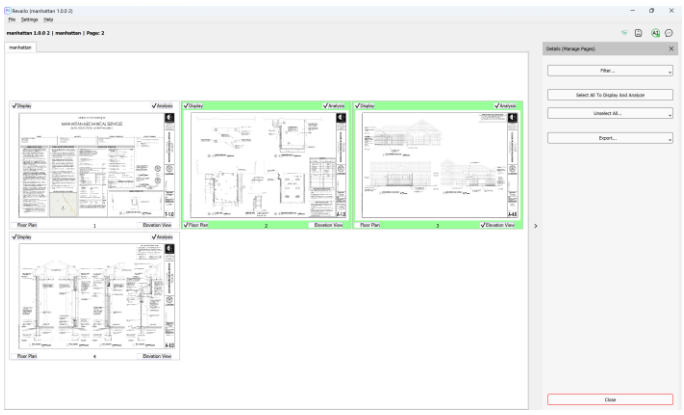
Overview



The Overview tab is the main tab of the right-side panel, containing the workflow to build your project. Typically, you follow each item from top to bottom. To assist you, each completed item will turn green.

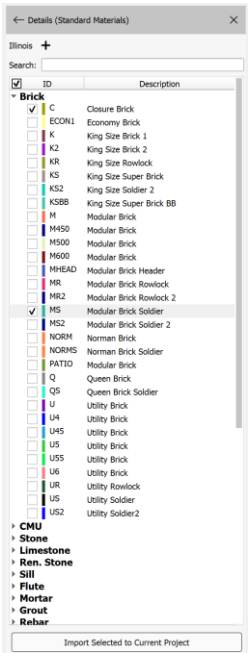
Project Information

Manage Pages



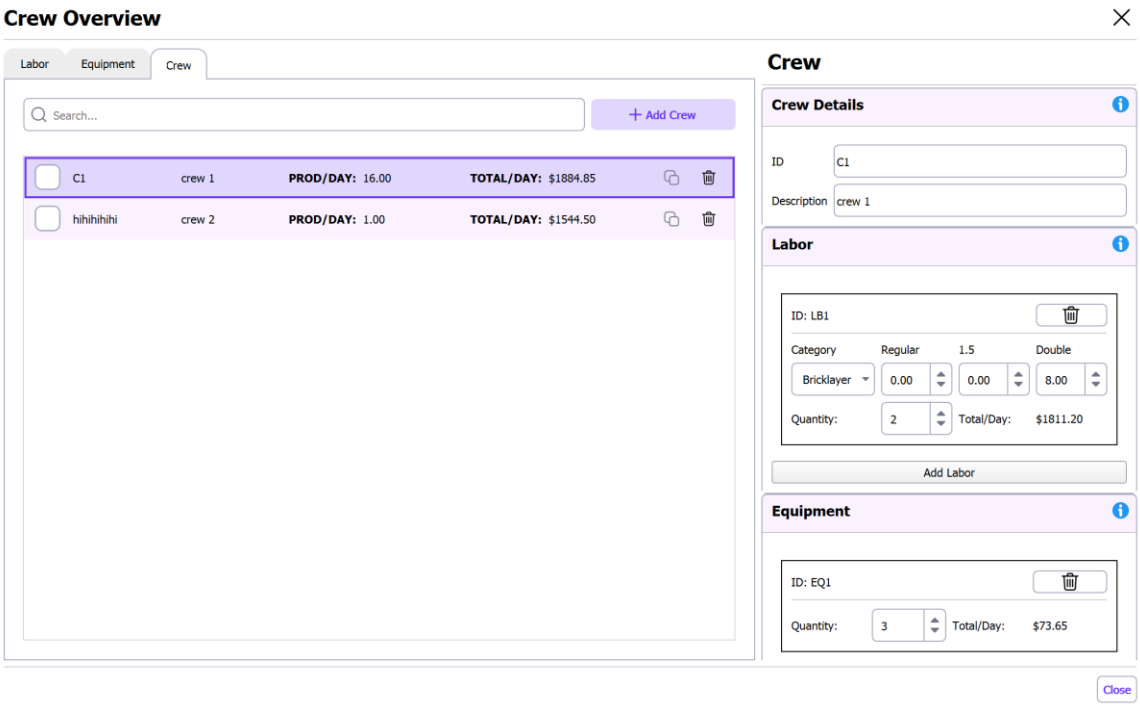
Manage Pages redirects you to a different view where you can select relevant pages for your project. This helps with easier navigation and selecting pages to be analyzed by the AI.

Import Project materials



The Import Project Materials option allows you to select materials to import for your project. If you skip this step, you can import and select materials when creating Material Types later.

Manage Crews



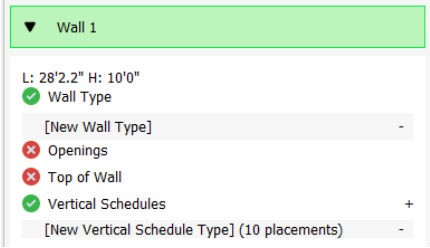
The Manage Crews button will open a window where you will be able to import, create, and modify workers, equipment, and crews. After properly setting up your crews, you'll be able to assign them to each material in the Report tab upon project completion.

Important: In a crew, only Bricklayers contribute to production calculations. If your crew doesn't include bricklayers, production computations cannot be performed.

Wall Construction/Openings/Top of Wall/Vertical Schedules

Here you can define your Material Types. Use the '+' button, the eye button, and right-click options to add, delete, modify, duplicate, or hide types from the PDF view. If AI identifies Material Types, they will appear in the list, and you can accept or reject them. Creating a new Type will open the corresponding Details Tab.

Assignment Review

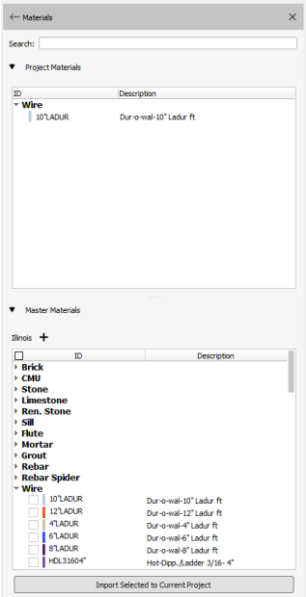


The Assignment Review section lets you review wall assignments for each Material Type group (Wall Types, Opening Types, Top of Wall Types, Vertical Schedule Types). You can see which walls have been assigned each type and identify unassigned walls, helping ensure all assignments are complete before generating and exporting a report.

Details

Details tabs are submenus of the Overview tab, providing more information about specific elements and helping you set them up correctly. For example, creating a new Wall Type from the Overview tab opens the Details tab for that Type. Details tabs serve various purposes throughout the app.

Materials



The Materials tab provides access to databases and opens automatically when you need to add materials to your Types. It has two main parts:

- **Project Database**: Contains the materials usable in your project. It starts empty, and you can view, edit, duplicate, or remove any material.
- **Master Database**: Contains all materials from your organization. It is the database selected when creating a project. You can add (using the '+' button), edit, or duplicate any materials here.

Since only project materials can be used, you need to import materials from the master database. Double-click an element to import it, or check multiple elements and press "Import Selected to Current Project".

When adding a material to a section, the project database is filtered to show only the applicable materials. A search bar at the top helps you find materials in both databases.

Guidance

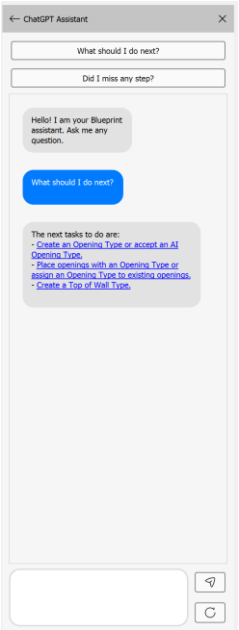
Guidance Menus

Our guidance menu system is designed to help you easily step through common processes within the app, as well as provide useful information for each step. When starting a process that involves many steps, such as assigning a Wall Type to a wall annotation, the Guidance Tab will appear next to the Details Tab and walk you through the steps necessary to complete your desired action. If something is unclear at any point, you can check the light blue ‘Help’ section at the bottom of the Guidance Tab where any questions you have may be answered.

Help Icons

Help icons (a circle with the letter 'i' in the center) are placed throughout the app to provide information on any potentially unrecognized feature. You can hover over the icon to see information on what a certain button, input, section etc. is and how it should be used.

ChatGPT Assistant



Our integrated ChatGPT assistant is here to help you throughout the software and has multiple purposes. It is accessible via the ChatGPT button at the bottom right of the main window (above the Guidance button). Once you click this button, a new chatbox tab will appear, where you can directly chat with our virtual assistant. You will be able to ask different types of questions:

- General masonry or architectural questions: As we use the latest version of ChatGPT-4 to help you, the assistant is smart enough to help you with your masonry related questions. For example, “What is CMU?”, “How much mortar do I need for each brick of a wall?”.

- Questions related to the software: Since our assistant has access to this user manual, it can retrieve information about the software and help you use it. For example, “What is the assignment review tab?”, “How do I assign a wall type to a wall?”.

- Questions related to the workflow: As the workflow is part of the user manual, you can also use ChatGPT to walk you through the software. Questions know the context of the program, so you can directly ask “What should I do next?”. You also have 2 buttons at the top of the chat that will directly guide you to the next steps or tell you if you missed any step. Those buttons are not using

ChatGPT so you will get an immediate answer, most likely with a link to the step you need to do next. This is a good way to easily find your way in the program. The response will then be used by ChatGPT to give context.

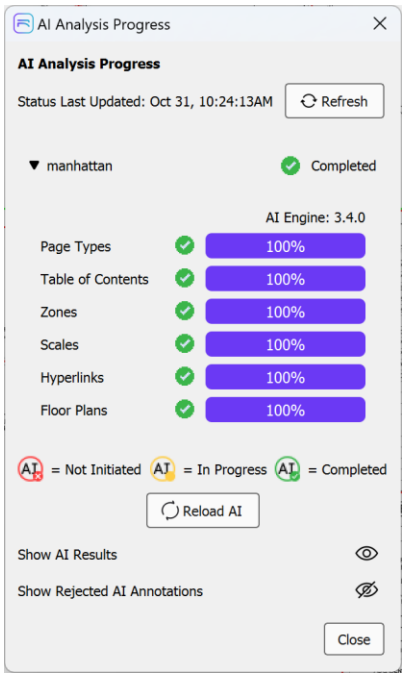
- Questions related to the document: When you start the AI analysis of a document, it is also sending a copy to our assistant (private, it won't be sent to ChatGPT to train its model) that you can use to find and extract information from your document. This will help you access the information you need more easily and faster than ever before. For example, "What is the typical wall construction of wall section 3?".

Toolbars and Overlays

Top Toolbar

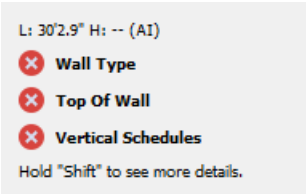
In the top toolbar, you'll see the project name, the current document name, and the current page. On the right side, there are four icons:

- **Online Status**: Indicates whether you are connected or working offline.
- **Save Button** (floppy disk): Saves your project when clicked. You can also use Ctrl+S or go to **File > Save** to save to the cloud.
- **AI Button**: Displays the progress of AI analysis. Clicking it opens a detailed view of the analysis.



- **Chat Button**: Opens the chat assistant tab.

Wall Hover Menu (PDF Tab – 2D)



The Wall Hover Menu allows you to quickly see which Material Types are assigned to a wall annotation. Hover over a wall to view its dimensions along with a green check mark or red 'x' for each Material Type, indicating whether it has been assigned. Hold the Shift key to display the specific Material Types assigned to the wall.

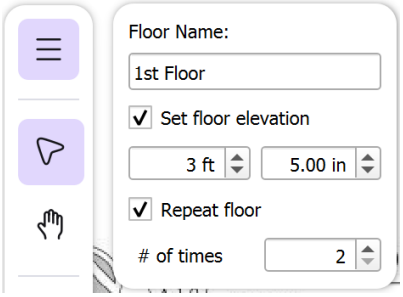
PDF Toolbar (PDF Tab – 2D)

Refer to this table for the interactions and shortcuts.

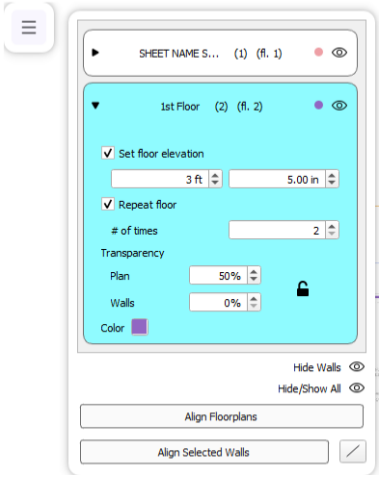
Building tool

The Building tool helps you set up the Building tab correctly. It is available in both the PDF tab and the Building tab, each with different functions:

- **In the PDF tab (2D)**: Allows you to set floor names, elevations, and repeat counts. You can apply these settings to the entire page if no region is selected, or to the currently selected region. Note that the "Repeat Floor" option affects your report by multiplying the elements within by this factor.



- **In the Building tab**: Displays a list of all floor plan regions, allowing you to set the same settings for each item. Additionally, visibility settings and alignment tools are provided to help you create the building with ease.



Cursor Mode

There are two cursor modes available.

Select Mode

Select Mode, represented by a mouse cursor, allows you to select multiple items by pressing and dragging. This can be used to assign multiple walls to a Wall Type or delete multiple items at once. Press Esc to reset the view to this mode.

Move Mode

Move Mode, represented by a hand icon, lets you move the page view by pressing and dragging the mouse. The first click acts as an anchor around which the page moves. You can easily enable Move Mode by holding down the spacebar.

Visibility Tools

Visibility Menu

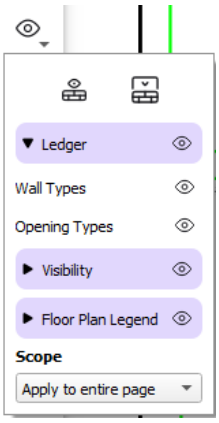
The visibility menu allows you to hide/show items on the PDF view. For example, you can hide all items that are lines.

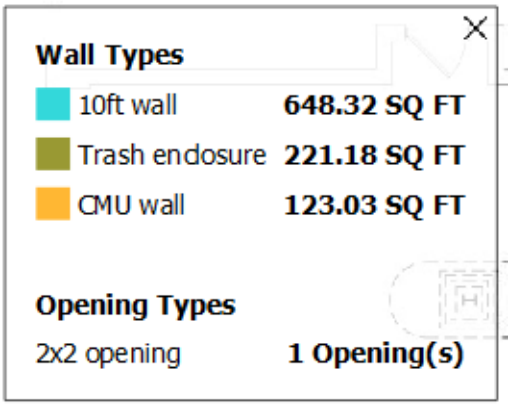
Depending on whether you're on a floor plan or elevation view page, additional submenus will appear. These menus serve as legends and visibility options specific to the current page.

The main eye icons are toggling all the subsection items visibility options.

You can also choose to apply the visibility settings to all your projects, the current project, or just the current page.

Ledger

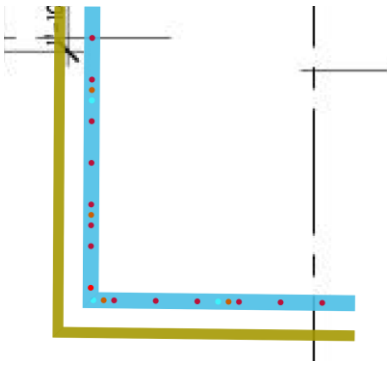




The ledger is part of the visibility menu. It allows you to visualize a page-by-page quantity of each Wall and Opening Types. This ledger will be displayed directly on the page and can be moved are removed easily.

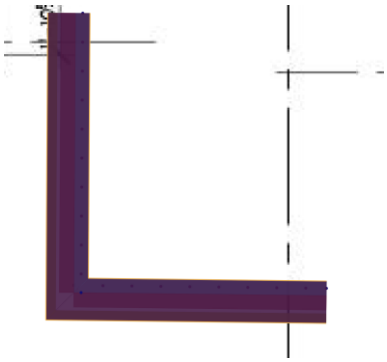
Wall View

Wall View provides a top-down view of your walls. You can toggle Wall View while on a Floor Plan page to see outside materials, inside materials, rebar and control joints placements in each wall. This helps ensure walls are placed correctly and materials align with the floor plan diagram.



Top of Wall View

Top of Wall View is similar to Wall View but also provides a top-down view of the Top of Wall materials assigned to your walls. You can toggle Top of Wall View on a Floor Plan page to see coping, flashing, anchor bolts, dowels, and fire safeing materials. Each material's visibility can be toggled in the Details tab while viewing a Top of Wall Type.



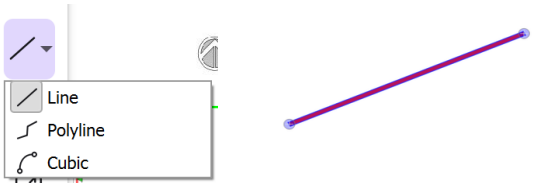
Drawing Tools

There are multiple tools in the toolbar that will allow you to draw on the pages.

Smart Line

This tool automatically extracts lines from your plans and allows you to quickly convert them into actual assignable lines. Simply turn the tool on, then click on any of the extracted PDF lines to place an assignable line at that position. If there are multiple possible lines where you clicked, you can click again to cycle through each option until you find the correct one. The smart lines tool needs to analyze the current page. For floor plans, the page will be analyzed automatically, for other pages, you will have to click on the smart lines button and wait a few seconds. Once it turns green, you will be able to add lines on the view.

Line

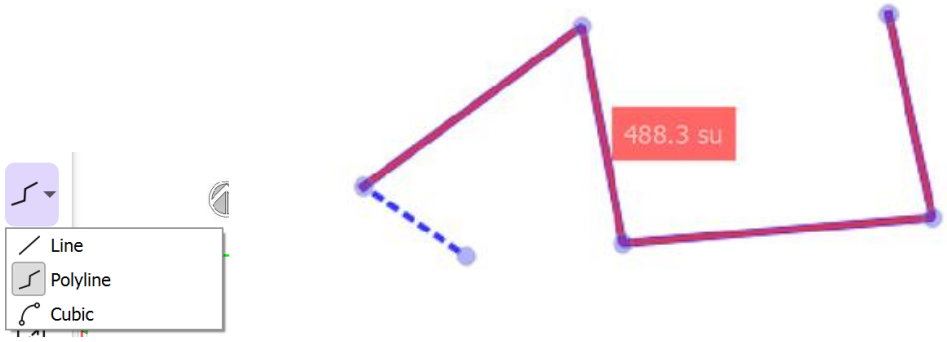


This tool allows you to draw a line on a page. Select the tool, click to start the line (a wall), move the mouse, and click again to confirm it. You can adjust the position by dragging the line or change its length/angle by dragging one end.

Snap Corners

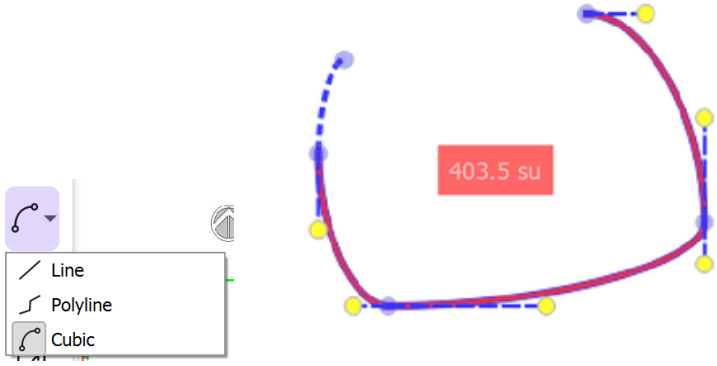
To connect walls, hold **Shift** while resizing a wall. The corner you're adjusting will snap to the nearest corner if available.

Polyline



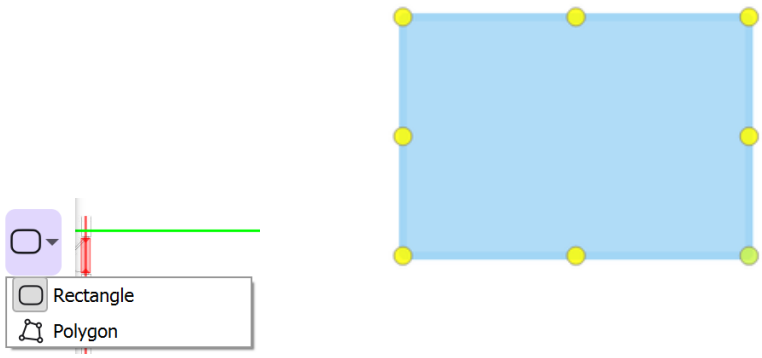
This tool allows you to draw a polyline (a series of connected lines) on a page. Select the tool, click to start the line (a wall), move the mouse, and click to confirm each segment. Continue adding segments, then right-click to exit polyline mode. When right-clicking, a menu will appear, allowing you to either close the polyline (connect the first and last points) or keep it open. By default, it stays open if you exit the menu or press Esc. You can adjust positions by selecting individual lines or change length/angle by dragging an end. You can also select multiple segments at once (Ctrl + Left Click or a selection box) to move them simultaneously.

Cubic line



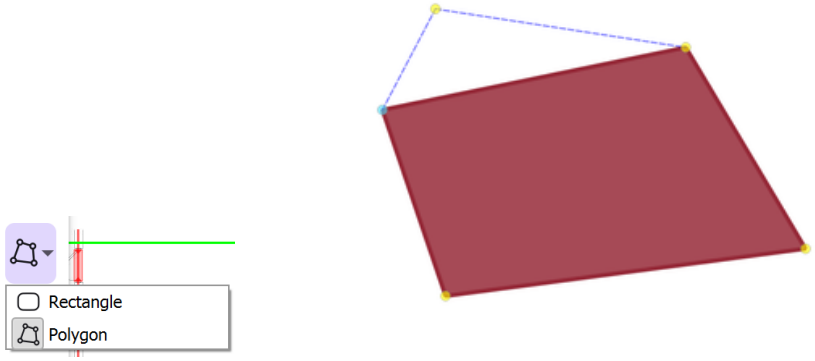
This tool allows you to draw cubic lines (a series of connected curved lines) on a page. Select the tool, click to start the line (a wall), move the mouse, and click to confirm each curve. Continue adding segments, then right-click or press Esc to exit spline mode and validate it. You can adjust the entire spline by dragging it, change length/angle by dragging an end, or adjust the curve by dragging the control bars linked to each corner.

Rectangle



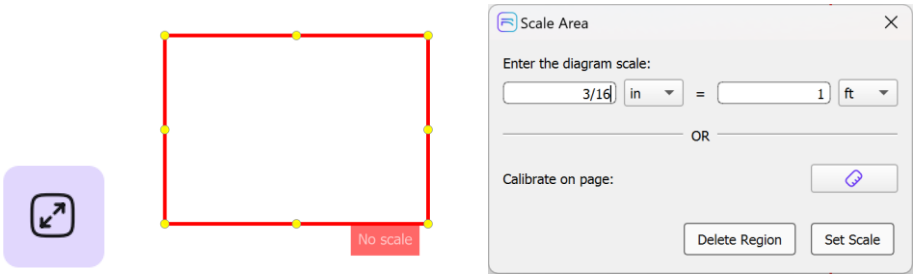
This tool allows you to draw a rectangle on a page. Select the tool, click to start the rectangle, move the mouse, and click again to confirm it. You can convert the rectangle to an Opening Type, polygon, or scaled region by right-clicking on it. Adjust the position by dragging it or change the size/shape by dragging a corner or side.

Polygon



This tool allows you to draw a polygon (a shape formed by multiple connected lines) on a page. Select the tool, click to add the first corner, move the mouse, and click again to confirm each side. Continue adding corners as needed, then right-click or press Esc to exit polygon mode and validate it. You can adjust the position by dragging the polygon or change its size/shape by dragging a corner.

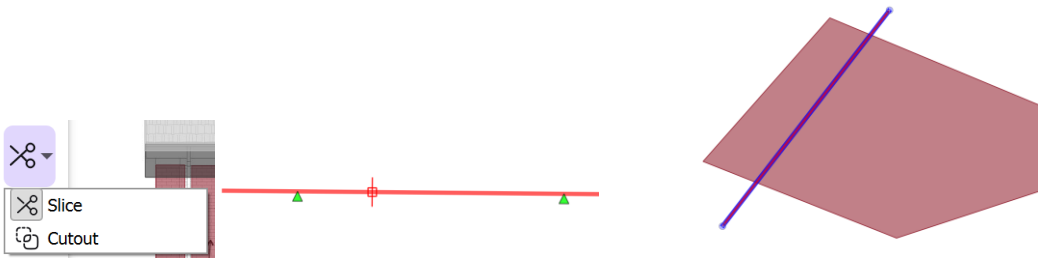
Scaled Region



This tool allows you to draw a scaled region (rectangle) on a page. Select the tool, click to start the region, move the mouse, and click again to confirm the rectangle. A popup will then appear to set the scale of the region. You can adjust the position by dragging it or change its size/shape by dragging a corner or side.

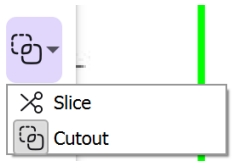
You can also set a type for the region by right-clicking and choose whether to analyze its contents. If drawn on a floor plan or elevation page, the analysis starts automatically.

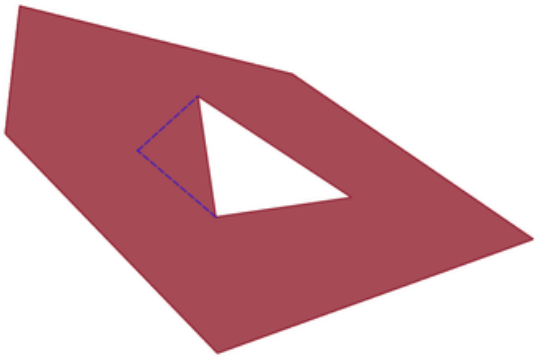
Slice



This tool lets you cut a line or slice a closed elevation view shape (polygon, rectangle). To cut a line, click where you want to split it. To slice a shape, draw a line by clicking two points outside the shape. Slicing a rectangle transforms it into a polygon.

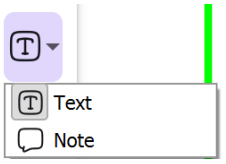
Cutout

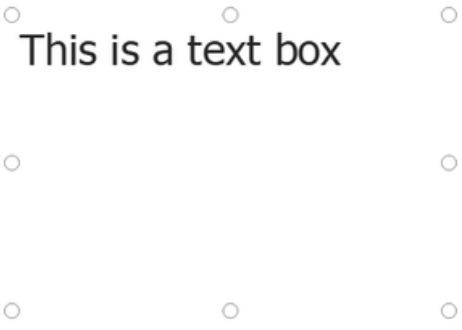




This tool allows you to draw a cutout on a shape (rectangle or polygon). Select the tool, click to add the first cutout corner, move the mouse, and click to confirm each side. Continue adding corners as needed, then right-click or press Esc to exit cutout mode and validate it. You can adjust the position of the cutout by dragging it, or modify its size/shape by dragging a corner.

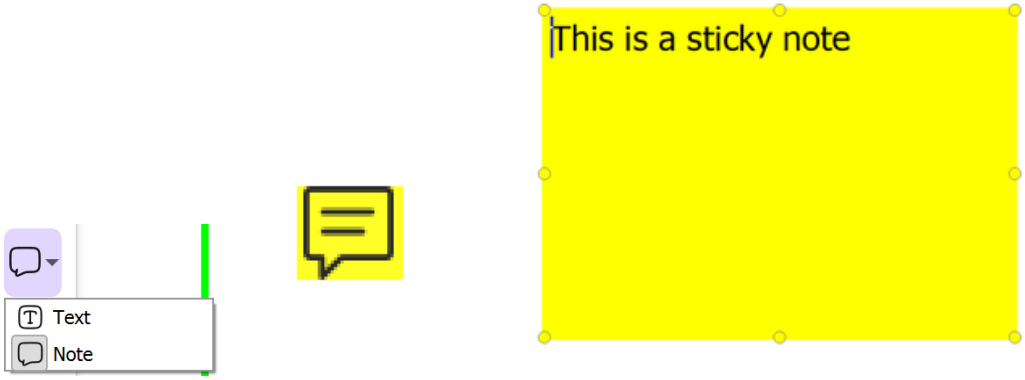
Text





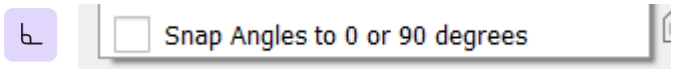
As explained in "Construction Specifications > Annotations," the Text Box is used to mark up the document. Select the tool, click to add a corner, move the mouse, and click again to confirm the text box. The **Text** button will be automatically untoggled. Click inside the box to start adding text. You can adjust the position by dragging a side or change the size/shape by dragging a corner. You can adjust the text box style by right-clicking on it.

Sticky Note



As explained in "Construction Specifications > Annotations," a Note is used to mark up the document. Select the tool and click where you want to add a note. The **Note** button will be automatically untoggled, and a popup will appear to add your comment. Write the text and press **OK** to confirm. Click the sticky note icon to open the note and click away to close it. Adjust the position by dragging the note, and adjust its style by right-clicking on it.

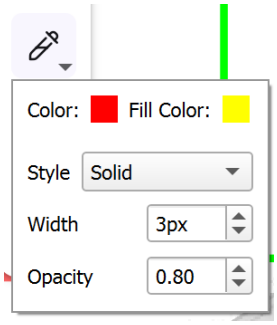
Snap Angles



To create straight lines and right angles, use the **Snap Angle** tool. This tool can be toggled using the corresponding button in the toolbar or the checkbox in the settings menu. When active (default), all lines, polylines, cubic lines, polygons, and cutouts you draw will snap to 0 or 90 degrees. Resizing lines will also maintain straight angles if this function is on (does not affect resizing polygons, cutouts, or splines).

You can also select one or more lines on a floor plan and choose **Right Click > Snap Angle**. This will adjust selected lines to 0 or 90 degrees if they are close (+/- 15 degrees). Otherwise, the lines will remain unchanged.

Appearance Settings



The appearance settings define default styles for drawing items. You can also use them to change the appearance of existing items, such as adjusting line color or width.

Undo/redo

The undo/redo functions allow you to revert changes in the PDF view (e.g., moving a wall, deleting a shape). Use the arrows in the toolbar or press Ctrl+Z to undo and Ctrl+Y to redo.

Page Navigation (PDF Tab – 2D)

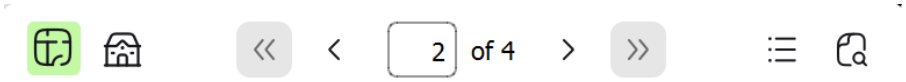


Table of Contents/Search Documents

On the left side of the program, you'll find the **Table of Contents**, useful for quickly navigating pages. You can create new sections and bookmark pages for easier access. The Table of Contents is enhanced with each AI pass. Waiting for the AI to finish processing will result in a more detailed Table of Contents.

The **Search Document** tab, next to the Table of Contents, allows you to find words identified in the document and navigate directly to them in the PDF. This tab also includes hyperlinks found by the AI or created manually for easy navigation.

Navigation

To navigate to key pages in your document, use the navigation arrows or the **Floor Plan** and **Elevation View** buttons. These will take you to the corresponding pages (identified by AI analysis or manually selected). You can also quickly set a page as a Floor Plan or Elevation View by right-clicking on these buttons, which will trigger AI analysis for the page.

If you have multiple documents, navigation will proceed from one page to the next until the end of a document, then continue with the next document. The main difference in the navigation bar is that you can directly select which document to view.

Zoom buttons (PDF Tab – 2D)

The zoom buttons let you zoom in, zoom out, or select a specific zoom level. Pressing Ctrl and scrolling will also zoom in or out.

PDF/3D Switch (PDF Tab)

This toggle button is only available on floor plan pages or pages with assigned Wall Types to switch between 2D and 3D views.

3D Toolbar (PDF Tab – 3D)

Toolbar modes

The toolbar consists of scene and object interactions and view modes, making it easy to switch between modes, edit objects, and display information. The toolbar elements are:

- **Mouse Move Modes** – Control how moving the mouse affects the camera:
    - **Orbit** – In Orbit mode, left-clicking and dragging the mouse rotates the camera in the direction of the mouse movement.

    - **Pan** – In Pan mode, left-clicking and dragging the mouse moves the camera in the direction of the mouse movement.
    - **Zoom** – In Zoom mode, left-clicking and dragging the mouse zooms in when moving upward and zooms out when moving downward.

- **Interaction Modes** – Control interaction with objects (walls, openings, rebar, control joints):
    - **Default** – Objects are selectable but cannot be moved. To enable editing for a single object, right-click on it and select 'Edit' in the menu. This enables moving the object using the arrow keys or by dragging with the mouse. Pressing 'Esc' or releasing the mouse will make the object non-editable again. Selected objects can also be interacted with using the right-click menu.
    - **Edit** – Objects are selectable and can be moved. For example, left-clicking and dragging an opening will move it until the mouse is released.
    - **Assign** – When a material type ID is selected, clicking on the objects that the material can be assigned to will assign and re-render them. For example, if the material type ID corresponds to a wall material, clicking on walls will update their assignments.
- **Measure Mode** – Used to get the distance between two points (A to B) on any object that is part of the rendering.
- **Info Mode** – Displays information about selected objects, which is useful when placing and adjusting elements such as openings and rebar.

Toolbar buttons

 **Information** - Show object information (e.g., wall type) in Details Tab

 **Home** - Go to default view

 **Fit** - Fit scene in view

 **Top** - Show top view of floorplan

 **Orbit/Pan/Zoom modes** (mutually exclusive)

 **Focus** - 4 options to focus on an object:

1) Focus in current direction and isolate wall
2) Focus in current direction with no isolation
3) Focus on front side of the object and isolate wall
4) Focus on front side of the object with no isolation

 **Rebar View** - Hide front walls and show rebar

 **Isolate** – Select the wall of interest first (hold Shift to select multiple), then press the 'Isolate' button to isolate the walls. You can keep isolating walls by repeating this process. Click 'Isolate' again to exit this mode.

 **Hide** - Hide selected walls (equivalent to isolate for the set complement)

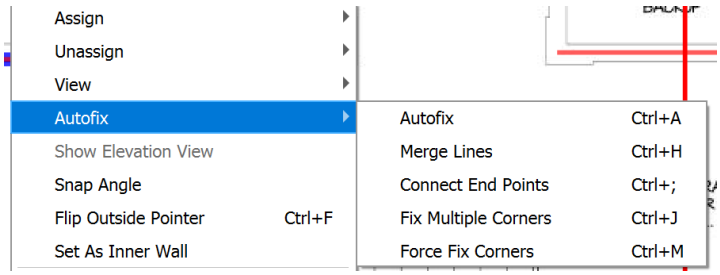
 **Edit** - Allow modifying the scene

 **Draw** - Allow drawing new openings

Measure - Used to get the distance between two points (A to B) on any object that is part of the rendering.

Refer to this table for the 3D mouse interactions and shortcuts.

Autofix (PDF Tab – 2D)



Right-clicking in the PDF tab opens a context menu with options that vary based on the selection. On a floor plan, when working with walls, one option is **Autofix**, a smart tool that helps you adjust project walls quickly and easily.

Autofix includes four key operations to automatically adjust and correct wall configurations:

- **Line Merging**: Combines closely aligned or overlapping lines into a single line, simplifying the wall structure.
- **Corner Fixing**: Adjusts lines at corners to ensure they meet neatly at right angles.
- **Creating Return Walls**: Adds 'return' walls to complete structures as needed.
- **Adjusting Lines for Small Areas**: Fine-tunes wall lines for compact spaces like trash enclosures or utility areas.

In addition to the automatic process, when you select the **Autofix** option, you can manually choose which operation to use (based on the selected elements) and access tools that are only available manually:

- **Connect End Points**: Creates a line between selected elements, connecting the two closest corners.
- **Force Fix Corners**: Connects all selected lines, useful when the standard corner fixing is not aggressive enough.
- **Break Lines at Junction**: Splits selected lines at their intersection.

These operations streamline drafting and correcting wall layouts, improving the accuracy and efficiency of architectural or construction planning.

If the automatic results are unsatisfactory, use the undo/redo tool to revert changes to the previous state.

Details

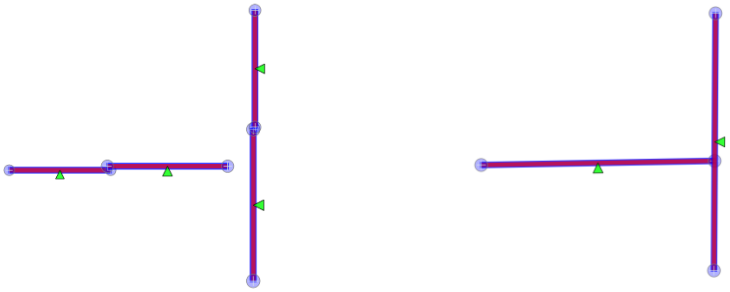
In the examples, unselected lines are displayed in red, while selected lines (clicked directly or selected with a bounding box) are highlighted in blue. After selecting lines, right-click and choose "Autofix" from the menu.

Line Merging

This function activates when multiple collinear lines are selected, merging them into a single line. This simplifies wall diagrams by reducing multiple aligned segments into one continuous line, resulting in a cleaner and more manageable layout.

Corner Fixing

When a group of lines is selected and fed into the auto-fix function, this operation first classifies the lines based on their orientation. If the lines are organized into two groups with distinct orientations and these groups are not significantly separated, corner fixing is performed. This process adjusts the lines so that they meet more cleanly, typically at right angles, enhancing the precision of the layout and correcting any misalignment at intersections.

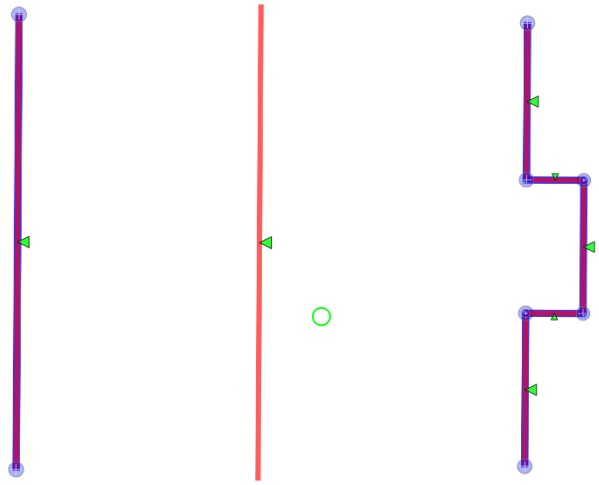


Creating Return Walls and Line Clipping

This feature is activated when a user selects a single line. After selecting the Autofix, the user will select two additional points. Depending on the points' positions relative to the line, the operation has two outcomes:

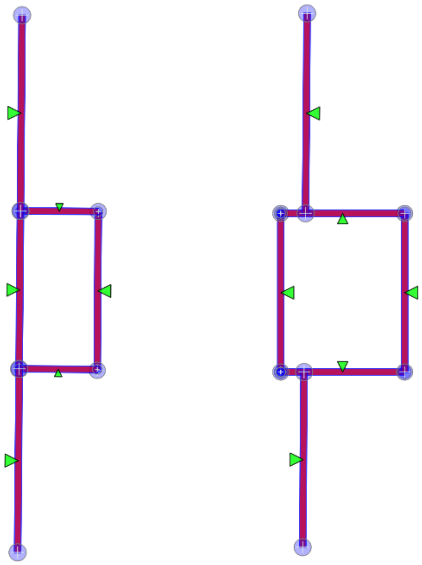
- **Line Clipping**: If the points are on the line, it is segmented at those points, breaking it into shorter lines.

- **Return Walls Creation**: If the points are off the line, new wall segments ("return walls") are created to extend from the existing line to the specified points, useful for adding details or extensions to a layout.



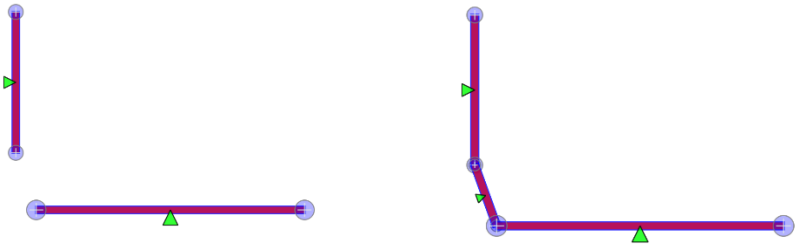
Adjusting Lines for Small Areas

This function is the opposite of corner fixing and is used to adjust lines within a small area, such as a room or enclosure, indicated by a user-drawn bounding box. Lines within this box are categorized as either outer or inner walls based on their proximity to the box edges. The operation adjusts the position of outer walls to align with the bounding box edges. If the automatic adjustment isn't sufficient, users can manually adjust by clicking near the box corners. To exit adjustment mode, simply right-click or press Esc.



Connect End Points

This function connects lines separated by a certain distance by adding an additional line between their closest points.



Force Fix Corners

Same idea as corner fixing, but more aggressive. It is going to link all selected walls even if they are far apart.

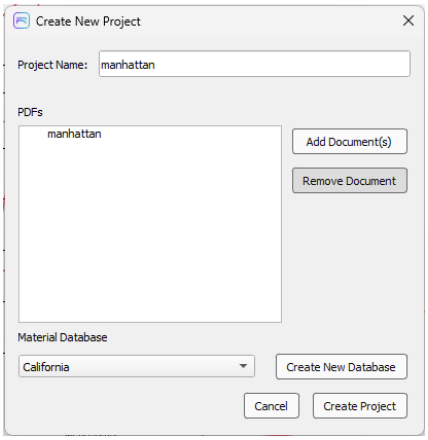
Break Lines at Junction

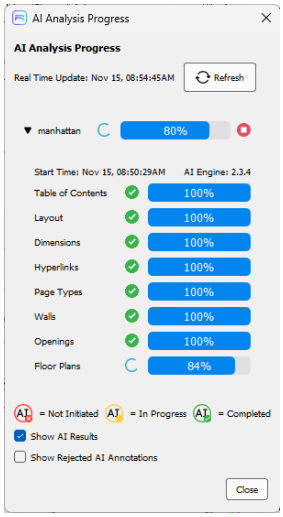
This function breaks selected lines at their intersections with other selected lines. If an intersection is near a line's corner, the corner is automatically adjusted to meet the intersection.

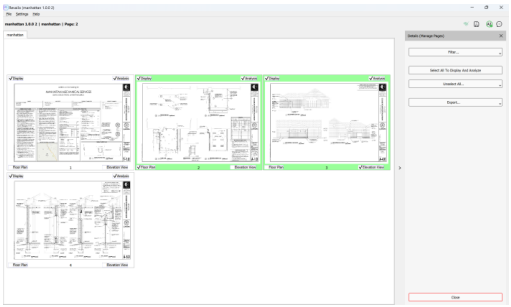
Workflow

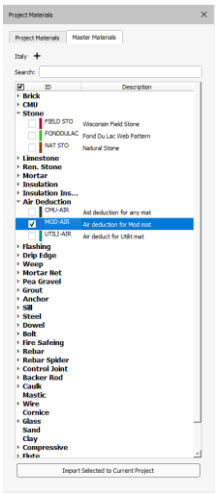
The following section shows the basic workflow of creating and working on a project using the Revailo app.

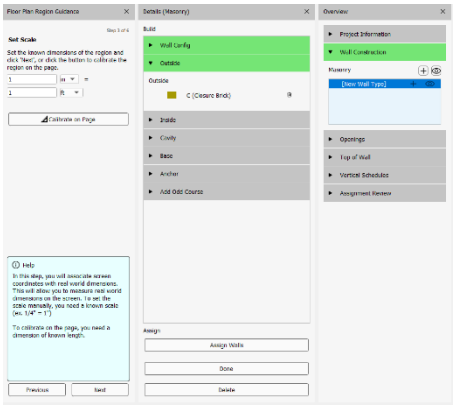
• Login with your Revailo account	

• Create a new project
  ○ Set a project title
  ○ Add documents
  ○ Select or create a new material database
	

• Wait for AI analysis results and view them TIP: Start reviewing the document while the AI is processing, using the Table of Contents and hyperlinks.	

• If not correctly done by AI analysis: ○ Go to “Project Information > Manage Pages” in the Overview tab to review and select relevant pages	

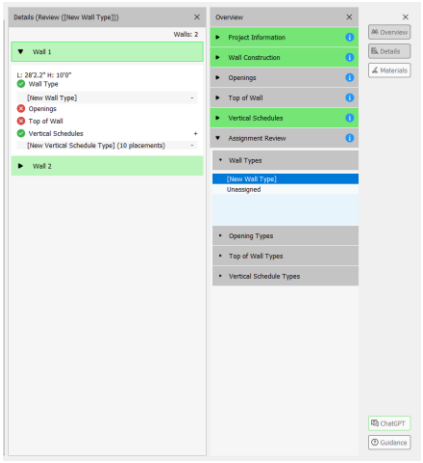
• Import project materials:
  ○ Select the materials you want to import to the project
  ○ Add new materials
  ○ Import
  ○ Edit materials (on project or on master material list)
• Import Crews, Equipments and Labors
	

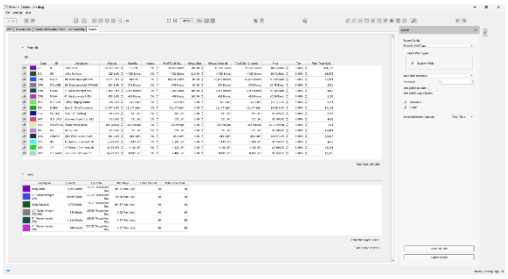
• Create Wall Types ○ Create Odd Courses	
• Assign Wall Types (follow guidance steps)	
• Create Opening Types	

• Assign AI Openings (follow guidance steps)
  ○ Place Openings
  ▪ Place on Floor Plan
  ▪ Place on Rendered Elevation View
  ▪ Assign from Printed Elevation View	

• Create Top of Wall Types	
• Assign Top of Wall Types (follow guidance steps)	
• Create Vertical Schedule Types	
• Assign Vertical Schedule Types (follow guidance steps)	
• Create Corner Types ○ Create Corner Odd Courses	
• Assign Corner Types (follow guidance steps)	

• Review wall annotations
  ○ Adjust items using the autofix
  ○ Draw/adjust scale regions
  ○ Draw/adjust lines/polylines
  ○ Draw/ajust rectangles/polygons
  ○ Create text boxes/notes
  ○ Add/adjust hyperlinks
	

• Review Assignments
  ○ Wall Types
  ○ Openings
  ○ Top of Walls
  ○ Vertical Schedules
  ○ Corners
	

• Generate Report (automatic) • If you imported crews earlier, you should see them here and be able to select them for each material	

• Customize Report
  ○ Select Wall Types
  ○ Adjust parameters	

• Export
  ○ 3D Model to IFC
  ○ Report to any format (.pdf, .docx, .csv, .html, .xlsx)	

Task Descriptions

Authentication

Logging In

Upon opening the Revailo app, you'll be prompted to log in or sign up for an account if you don't have one. Enter your email and password, then click 'Login'. If you've forgotten your password, you can request a reset. Note that logging in requires an internet connection.

Logging Out

To log out, click the 'Logout' button located in the File menu (top bar). A menu will appear showing your account information. Click 'Logout' again to confirm. Note that logging out will erase local data, and you will not be able to work offline until you log in again.

Project Management

Creating a Project

To create a project, click 'New Project' in the File menu (top bar). This opens the Create Project menu. Enter a unique project name for your organization, then add PDF documents from local storage by clicking the 'Add' button. To remove a document, select it and click 'Remove'. To rename a document, double-click its name to edit it. At least one document must be added to create a project.

Next, select an organization material database from the dropdown menu or create a new one using the 'Create New Database' button. Finally, click 'Create Project' in the lower right corner to upload your project data to the cloud and initiate AI analysis of the project documents.

Editing a Project

To edit the current project, click 'Edit Project Information' in the File menu (top bar). This opens the Edit Project menu, where you can modify the project name, manage documents, and update the material database. Use the 'Add' button to select a PDF document from local storage, 'Remove' to delete a document from the project, 'Recover' to restore a previously removed document, and double-click a document name to rename it. When you're done, click 'Edit Project' in the lower right corner to apply your changes and reload the project.

Deleting a Project

If you are an Organization Superuser, Organization Owner, or Project Owner, you can delete a project by navigating to File → Delete → Delete Project and selecting the

project. Once selected, the project will be marked for deletion, with an option to recover it within 60 days. If you delete the currently open project, it will be saved, closed, then deleted.

Recovering a Project

If you are an Organization Superuser, Organization Owner, or Project Owner, you can recover a project by navigating to File → Delete → Recover Project and selecting the project. The project will then be available for editing. Note that projects can only be recovered within 60 days of deletion.

Managing Collaborators (coming soon)

~~To manage project collaborators, click the 'Collaborators' icon in the toolbar to open the Collaborators menu. Here, you can view the current project collaborators from a dropdown menu, allowing you to select and view their annotations. Click 'Manage Collaborators' to open a second menu, where you can see a list of current collaborators and a dropdown menu of other organization members who are not yet collaborators. To invite a member, select their name and click 'Invite Collaborator'. This adds them to the collaborators list and sends an email invitation to their Revailo account. You can also remove users and edit their permissions in this menu. Only organization owners, superusers, project owners, and project superusers can invite and manage users.~~

AI (Artificial Intelligence)

Initiating AI Analysis

When a project is created, AI analysis automatically begins on all project documents. However, you may need to reanalyze a document or part of a document for various reasons.

The analysis occurs in two main steps:

1. **Global Analysis**: A first pass on the entire document to identify page types, table of contents, hyperlinks, and zones. Once completed, the results are returned to the program.
2. **Complete Analysis**: A detailed analysis of specific pages, such as Floor Plans and Elevation Views, to identify walls, openings, elevations, hyperlinks, and scales. This step may take a few minutes, and the results are then returned to the program.

An OCR analysis (text extraction) is also performed in the cloud to enhance the performance of our chat assistant.

Initiating Floor Plan Analysis

Our AI engine automatically identifies pages as Floor Plans or Elevation Views and performs specialized analysis on them. After the initial analysis, you may find that not all Floor Plan pages were correctly identified. In this case, go to the “Manage Pages’ section and manually select these pages. When you click 'Done,' the newly selected pages will be reanalyzed as Floor Plans.

If the AI engine missed a Floor Plan region, adding a new region on a Floor Plan page will trigger reanalysis for walls and other relevant annotations.

Initiating Elevation View Analysis

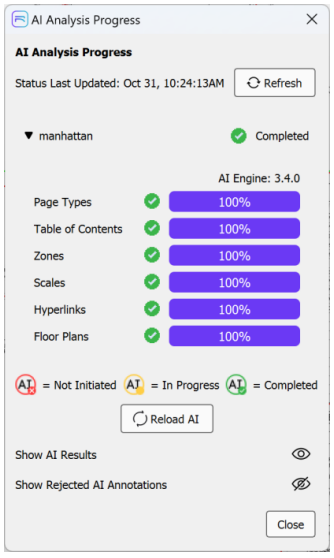
Similar to Floor Plan pages, the AI may not identify all of your Elevation View pages during the initial analysis. To correct this, go to the 'Manage Pages’ section and select the missing pages. When you click 'Done,' the newly selected pages will be reanalyzed as Elevation Views.

If the AI missed an Elevation View region, adding a new region will trigger reanalysis for openings and other relevant annotations.

Reanalyzing with an Updated AI Engine

Our AI engine is continuously updated and improved. When a new version is launched, you will be notified and asked if you'd like to reanalyze your documents using the latest version. Simply accept the prompt, and your project documents will be fully reanalyzed. This must be done individually for each project.

AI Progress Report



To view a detailed progress report of the AI analysis for each project document, click the AI icon in the toolbar. A menu will pop up showing the progress of each document. If analysis is complete, a green checkmark and 'Completed' will be

displayed; otherwise, you'll see the current progress. To view more details, click the expand button next to the document name. You can see when the analysis started, the AI engine version being used, and the progress of each analysis type. If multiple analyses are requested, the combined progress will be shown (e.g., if you analyze pages 1-2, then pages 3-4, the progress for pages 1-4 will be displayed).

Terminating AI Analysis

To stop an ongoing document analysis, expand the document details in the AI Progress Report menu and click the stop button  . This will stop the analysis on our cloud servers, and you will need to request a reanalysis to restart it.

Reviewing AI Annotations

Once an AI analysis is complete, newly identified annotations will be added to your document pages, marked (on hover) with an 'AI'. When you edit these annotations, they automatically become user annotations.

Accepting AI Material Types

When AI analysis is complete, newly identified AI Material Types will be added to the Collaborator Material Type lists, marked with '(AI)'. Before they become part of your project and can be edited or assigned, you must review and accept them. To do so, click the Material Type in the list to open the Details tab and review its specifications. Click 'Accept' to add it to your project or 'Reject' to remove it from the list.

Materials

Importing Project Materials

After selecting an organization material database, you need to choose specific materials for your project. These materials can typically be found by reviewing your documents for listed diagrams and notes. To import materials, open the Overview tab, then go to Project Information and click 'Import Project Materials'. This will open the Materials tab on the left, showing all organization database materials grouped by class. Select the materials to import, using the search bar if needed. When finished, click 'Import to Project'.

Editing Materials

You can duplicate, remove, or edit materials by right-clicking on the material and selecting an option. When editing, a popup window will display the material's current parameters. Modify any parameter as needed, then click 'Save' to apply changes, creating a new version of the material.

General

This section contains the material class (Brick, CMU, etc.), the material ID, the material description, and the color code of the material.

Material Specifications

This section contains the parameters for the material: width, height, length, bonding, side bonding, mortar and Unit/CuFt mortar.

Price

This section allows the user to set the price of the material per square feet, the price of the material per piece, waste factor, and the tax rate.

Cube/Strap/Roll/Box/Bundle/Bag

This section allows the user to set parameters relating to cube, strap, roll, box, bundle or bag.

Labor

This section allows the user to set the lay rate of the material, as well as the labor per unit.

Percent

This section allows the user to set the percentage of the material that is solid, as well as the cell count.

Cleaning

This section allows the user to specify the cleaning of the material.

Adding New Materials

To add new materials, click the ‘+’ button. This will open a popup window similar to the editing window, where you can set the new material and its parameters. When done, click 'Save' to apply the changes.

Construction

Creating Walls

To create a new Wall Type, go to the Wall Construction section in the Overview tab and click the '+' button. A new Details tab will appear with multiple sections to configure the Wall Type settings.

- Wall Config
    - Set the name

    - Set the shape and its associate parameters
    - Set the height and base elevation
- Outside
    - Select a material and adjust its parameters if necessary. This will open another tab where you can select materials from the project table. Only allowed material for each category will be visible and available to add to the corresponding part.
- Inside
    - Select a material and adjust its parameters if necessary
- Wire
    - Wire: Select a material and adjust its parameters if necessary
    - Parapet Wire: Select a material and adjust its parameters if necessary
- Cavity
    - Select Air Space
    - Cavity Fill: Select a material and adjust its parameters if necessary
    - Parging/Collar-Joint: Select a material and adjust its parameters if necessary
- Base
    - Flashing: Select a material and adjust its parameters if necessary
    - Drip Edge: Select a material and adjust its parameters if necessary
    - Weep: Select a material and adjust its parameters if necessary
    - Mortar Net/Pea Gravel: Select a material and adjust its parameters if necessary
    - Grout: Select a material and adjust its parameters if necessary
- Anchor
    - Select a material and adjust its parameters if necessary
- Add Odd Course
    - You can add an odd course to a wall, this will bring you to the odd course details tab where you adjust the settings

Creating Odd Courses

- Odd Course Outside/ Inside
    - Outside: Select a material and adjust its parameters if necessary
    - Inside: Select a material and adjust its parameters if necessary
- Odd Course Config
    - Set the name

    - Set the bands quantity and the space between them
    - Set the position and the elevation
    - Set the height and base elevation
- Odd Course Rebar/Grout
    - Rebar: Select a material and adjust its parameters if necessary
    - Grout: Select a material and adjust its parameters if necessary
    - Rebar Positioner: Select a material and adjust its parameters if necessary
- Odd Course Cavity
    - Cavity Fill: Select a material and adjust its parameters if necessary
    - Parging/Collar-Joint: Select a material and adjust its parameters if necessary
- Odd Course Top
    - Flashing: Select a material and adjust its parameters if necessary
    - Drip Edge: Select a material and adjust its parameters if necessary
    - Weep: Select a material and adjust its parameters if necessary
- Odd Course Base
    - Flashing: Select a material and adjust its parameters if necessary
    - Drip Edge: Select a material and adjust its parameters if necessary
    - Weep: Select a material and adjust its parameters if necessary
- Odd Course Anchor
    - Select a material and adjust its parameters if necessary

Creating Openings

To create a new Opening Type, go to the Openings section in the Overview tab and click the '+' button. A new Details tab will appear with multiple sections to configure the Opening Type settings.

- Opening Config
    - Set the name
    - Set the shape
    - Set the length, height
    - Choose base elevation (or not)
    - Choose the wythes and base flashing deduct
- Outside
    - Header

        - Header: Select a material and adjust its parameters if necessary
        - Flashing: Select a material and adjust its parameters if necessary
        - Drip Edge: Select a material and adjust its parameters if necessary
        - Weep: Select a material and adjust its parameters if necessary
        - Mortar Net: Select a material and adjust its parameters if necessary
        - Select bearing and side
    - Steel Lintel
        - Select a material and adjust its parameters if necessary
    - Front of Beam
        - Select a material and adjust its parameters if necessary
    - Jamb
        - For right and left parts of the opening, select a material for 1st and 2nd courses and adjust its parameters if necessary
        - Vertical Flashing: Select a material and adjust its parameters if necessary
    - Sill/Header/Band
        - Sill/Header/Band: Select a material and adjust its parameters if necessary
        - Bottom Flashing: Select a material and adjust its parameters if necessary
        - Drip Edge: Select a material and adjust its parameters if necessary
        - Weep: Select a material and adjust its parameters if necessary
        - Select lug and return depth
    - Select return Depth
- Inside
    - Header
        - Header: Select a material and adjust its parameters if necessary
        - Flashing: Select a material and adjust its parameters if necessary
        - Drip Edge: Select a material and adjust its parameters if necessary
        - Weep: Select a material and adjust its parameters if necessary
        - Mortar Net: Select a material and adjust its parameters if necessary
        - Select bearing and side
    - BB/Precast/Odd
        - BB/Precast/Odd: Select a material and adjust its parameters if necessary
        - Rebar: Select a material and adjust its parameters if necessary
        - Grout: Select a material and adjust its parameters if necessary

    - Steel Lintel
        - Select a material and adjust its parameters if necessary
    - Front of Beam
        - Select a material and adjust its parameters if necessary
    - Jamb
        - For right and left parts of the opening, select a material for 1st and 2nd courses and adjust its parameters if necessary
        - Vertical Flashing: Select a material and adjust its parameters if necessary
    - Sill/Header/Band
        - Sill/Header/Band: Select a material and adjust its parameters if necessary
        - Bottom Flashing: Select a material and adjust its parameters if necessary
        - Drip Edge: Select a material and adjust its parameters if necessary
        - Weep: Select a material and adjust its parameters if necessary
        - Select lug
- Caulking
    - Inside Caulking: Select a material and adjust its parameters if necessary
    - Outside Caulking: Select a material and adjust its parameters if necessary
- In-Fill (Void)
    - Select a material and adjust its parameters if necessary
- Frame
    - Frame Fill: Select a material and adjust its parameters if necessary
- Vertical Schedules
    - Jamb Rebar: Select a material and adjust its parameters if necessary
    - Jamb Grout: Select a material and adjust its parameters if necessary
    - Adjust the schedule's parameters

Placing Openings

To place an opening, follow the guided steps to add it to a wall. Once placed or assigned, the opening can be moved as needed.

Creating Top of Walls

To create a new Top of Wall Type, go to the Top of Wall section in the Overview tab and click the '+' button. A new Details tab will appear with multiple sections to configure the Top of Wall Type settings.

- Top of Wall Config
    - Set the name
- Coping
    - Select a material and adjust its parameters if necessary
- Flashing
    - Select a material and adjust its parameters if necessary
- Drip Edge
    - Select a material and adjust its parameters if necessary
- Anchor Bolt
    - Select a material and adjust its parameters if necessary
- Dowel
    - Select a material and adjust its parameters if necessary
- Fire Safeing
    - Select a material and adjust its parameters if necessary

Creating Vertical Schedules

To create a new Vertical Schedule Type, go to the Vertical Schedule section in the Overview tab and click the '+' button. A new Details tab will appear with multiple sections to configure the Vertical Schedule Type settings.

- Vertical Schedule Config
    - Set the name
- Rebar/Grout
    - Set the spacing or the number of rebar per wall
    - Rebar: Select a material and adjust its parameters if necessary
    - Grout: Select a material and adjust its parameters if necessary
    - Void Fill Grout: Select a material and adjust its parameters if necessary
    - Rebar Positioner: Select a material and adjust its parameters if necessary
- Control Joint
    - Set the spacing of control joints and the repeat frequency
    - Set the minimum distance from a corner
    - Control Joint: Select a material and adjust its parameters if necessary
    - Backer Rod: Select a material and adjust its parameters if necessary
    - Caulk: Select a material and adjust its parameters if necessary
    - Rebar: Select a material and adjust its parameters if necessary

- Grout: Select a material and adjust its parameters if necessary
- Rebar Positioner: Select a material and adjust its parameters if necessary

Microadjustments

From the Vertical Schedule Type, click 'Microadjustments' to adjust the vertical schedule of a specific wall. A guidance tab will open, prompting you to select a wall on the floor plan. You will then view the wall's elevation to move/add/delete rebar or control joints, and select or deselect grouted cells.

Creating Corners

To create a new Corner Type, go to the Corner section in the Overview tab and click the '+' button. A new Details tab will appear with multiple sections to configure the Corner Type settings.

- Corner Config
  - Set the name
  - Set the height and base elevation
- Outside/Inside
  - Outside: Select a material and adjust its parameters if necessary
  - Inside: Select a material and adjust its parameters if necessary
- Add Corner Odd Course
  - You can add an odd course to a corner the same way you do it for a wall, this will bring you to the corner odd course details tab where you adjust the settings

Creating Corner Odd Courses

- Odd Course Outside/Inside
  - Outside: Select a material and adjust its parameters if necessary
  - Inside: Select a material and adjust its parameters if necessary
- Odd Course Config
  - Set the name
  - Set the bands quantity and the space between them
  - Set the position and the elevation
  - Set the height and base elevation

Assigning Material Types

Once the material types are created, they need to be assigned to the corresponding walls. The process is the same for Wall Construction, Top of Wall, and Vertical Schedule. First, select the type you want to assign and click 'Assign Walls' in the Details tab. A new tab will then guide you step-by-step on how to assign the material type to walls.

Labor

Creating Labor

To create a new labor, click on the ‘Add Labor’ Button. This will populate the right side of the screen with widgets for you to fill out the details of the labor.

Labor Details

This section contains the Description and the ID (identifier) of the labor task.

Wages

This section allows you to define the wages to be paid for the specific labor. Each wage needs to have a description (e.g. Base) and a rate.

Fringes

This section allows you to define the fringe benefits for the labor. Each fringe needs to have a description and an amount/rate.

Burdens

This section allows you to define the burdens for the labor. There are 5 already added: Social Security, Workmen’s Compensation, Federal Unemployment Insurance, State Unemployment Insurance, and Liability Insurance. We have provided 2 extra fields if needed.

Equipment

Creating Equipment

To create a new equipment, click on the ‘Add Equipment Button. This will populate the right side of the screen with widgets for you to fill out the details of the equipment.

Equipment Details

This section allows you to define the description, id, and the cost per day of the equipment.

Crew

Creating Crew

To create a new crew, click on the ‘Add Crew Button. This will populate the right side of the screen with widgets for you to fill out the details of the crew.

Crew Details

This section allows you to define the description and the id of the crew.

Crew Labor

In this section, you can assign laborers to a crew. The laborers available for assignment are those you specified earlier in the Labor tab.

When adding a laborer, you will have the option to select the category of their role from the following options: Bricklayer, Supervisor, Laborer, or Operator. Additionally, you can define their hours as regular, 1.5 times, or double time, as well as specify the quantity of laborers needed for the task.

The only role to be considered in the final production calculation will be the Bricklayers. All other roles will be ignored. They will still count towards the final cost.

Crew Equipment

In this section, you can assign equipment to a crew. The equipment available for assignment are those you specified earlier in the equipment tab. You can also specify the quantity of the equipment to be used, which will be factored in the final cost.

Shortcuts and Interactions

Global Shortcuts

Key Press Event	Interaction	Description
Ctrl + Q	Quit	Exit the program
Ctrl + S	Save project	Save the last changes made on the current project on the cloud and in the cache
Ctrl + O	Open Project	Open the project list popup
Ctrl + N	New Project	Open the new project creation popup
Ctrl + E	Edit Project	Open the edit current project information popup
1	PDF/3D Tab	Go to the PDF/3D tab
2	Building Tab	Go to the Building tab
3	Section View Tab	Go to the Section View tab
4	Rendered Elevation View Tab	Go to the Rendered Elevation View tab
5	Report Tab	Go to the Report tab

Building Shortcuts

Key Press Event	Interaction	Description
Esc	Stop drawing alignment line	Reset the drawing mode to select and drag with the mouse
Enter	Switch between plans	Iterate through the list of plans to change the selected one

Report Shortcuts

Key Press Event	Interaction	Description
Escape with selected content	Reset cell content	For a blue cell (modified content), reset to the original computed value

PDF View Shortcuts

Key Press Event	Interaction	Description
Arrow Keys	Pan around the PDF	If the page is zoomed in, move around the page
Home Key	Go to Page 1 of the PDF	
End Key	Go to last page of the PDF	
PgUp Key	Go to next page of the PDF	
PgDown Key	Go to previous page of the PDF	
J Key	Return to page	Go to the previous page viewed
S Key	Toggle Snap Angle	Toggle on and off the “Snap Angle” tool
Scroll Wheel	Zoom in/out	
Ctrl + Scroll Wheel	Go to next/previous page	
Ctrl + Click	Select Multiple Walls	Keep control pressed and click on walls to select them
Ctrl + Number (1, 2, 3…)	Autofix modes	For each number, a mode is associated and will trigger one of the possible modes of Autofix. **Number 1** is default and will trigger the automatic Autofix mode. Nothing happens if the selected mode is not available for the current configuration of selected walls

Spacebar pressed	Toggle Drag/Select mode	Switch between drag mode when you can move around the PDF and select mode when you can select items
Shift - while resizing a wall	Snap to closest corner	The corner you are moving will snap to the closest corner if there is one
Shift - while hovering a wall	Show details	Show details on the types assigned to the wall
Del	Delete selected walls	
Ctrl + Z	Undo	
Ctrl + Y	Redo	
Tab when one wall selected	Select neighbor	Press Tab multiple times to loop through the walls connected to the originally selected wall
Esc	Restore Select mode	

PDF View Touch Screen Interactions

Touch Event	**Interaction**	**Description**
Tap or drag	Select items	Select the items tapped or the items in the select box
Long press	Right click menu	Gives the same interaction as a right click
Double tap	Change page	If you double tap on the bottom part of the page, it will go to the next page of the PDF, and if you double tap on the top of the page, it will go to the previous page of the PDF
Two fingers drag	Pan around the PDF	If the page is zoomed in, move around the page
Two fingers pinch	Zoom in/out	Bring two fingers together to zoom out, and move them apart to zoom in

3D Rendering Shortcuts and Interactions

Mouse Interactions

Mouse Event	Interaction	Description
Left click	Select object	Objects such as walls, openings, control joints, and rebar are pickable. Left clicking on the object will highlight it
Left click and drag mouse	1) Drag Object 2) Draw Opening **In Orbit mode** 3) Rotate Scene **In Zoom Mode** 4) Zoom In/Out **In Pan Mode** 5) Pan Scene	1) If the object is editable$*^1$, the opening, rebar or control joint is selected (highlighted in red) the object will be dragged with respect to the mouse position. 2) If the free form drawing is enabled$*^2$, left clicking and dragging on a partially assigned wall will add a new opening on the rendering scene. To make sure the opening is added correctly, draw the object within the bounds of the wall. Upon mouse release, the new opening type ID will be saved and the new opening will be added to the wall's list of openings. Otherwise, the drawing will be discarded. **In Orbit mode** 3) Camera will be rotated with respect to the mouse movement. **In Zoom Mode** 4) Camera will be zoomed in and out with respect to the mouse movement. **In Pan Mode** 5) Camera will pan left and right with respect to the mouse movement.
Right click	Display menu	Right clicking on a wall, opening, rebar or control joint will display the corresponding menu which includes functions such as add, delete, or assign. Right clicking on a floor plan will

		display the corresponding menu with options to bring selected floorplan to top, if applicable, or showing all/unhide walls.
Double left click	Fit camera	Re-adjust the camera to fit the entire scene using the current camera position.
'SHIFT' key + left click	**In default interaction mode** 1) Keep multiple walls selected. **In Assign Mode** 2) Assign wall/opening/rebar	**In default interaction mode** 1) Shift key will enable multiple walls to be selected at once when left clicking on the wall. **In Assign Mode** 2) If a material type ID is selected in the toolbar for the assigning a wall, rebar, or opening, pressing the shift key and clicking on the corresponding object will be assigned and updated. Similarly, if an opening type ID is selected in the toolbar for adding openings, clicking on a point on the wall will add an opening at the clicked position.
'SHIFT' key + left click and drag mouse.	Pan scene	Camera will pan left and right with respect to the mouse movement.
'ALT' key + left click	**In default interaction mode** Assign wall/opening/rebar	**In default interaction mode** If a material type ID is selected in the toolbar for the assigning a wall, rebar, or opening, pressing the shift key and clicking on the corresponding object will be assigned and updated. Similarly, if an opening type ID is selected in the toolbar for adding openings, clicking on a point on the wall will add an opening at the clicked position.
'CTRL' key + left click and drag mouse	**In Orbit mode** 1) Rotate in y-axis **In Zoom and Pan Mode** 2) Zoom In/Out	**In Orbit mode** 1) Camera rotation about the y-axis. **In Zoom and Pan Mode**

		2) Camera will be zoomed in and out with respect to the mouse movement.
Scroll wheel in	Zoom in	Camera will move closer to the scene.
Scroll wheel out	Zoom out	Camera will move away from the scene.

Notes:

1. Object is editable either by selecting Edit mode in the toolbar, or by selecting and right clicking on the object and choosing the 'Edit' option in the menu.
2. Free form drawing is enabled either by selecting the Draw mode in the toolbar, or by selecting and right clicking on the object and choosing the 'Draw opening' option in the menu.

Keyboard Scene Interactions

Key Press Event	**Interaction**	**Description**
'ESC' key	Reset mouse interaction	Reset flags and mouse interaction mode to default. For instance, if in draw mode, 'ESC' key will exit the free form add opening functionality.
'UP' arrow key	**In Orbit mode** 1) Rotate floorplan up **In Zoom and Pan Mode** 2) Zoom In	**In Orbit mode** 1) The floorplan will be rotated up about its pivot point. **In Zoom and Pan Mode** 2) Camera will move closer to the scene.
'DOWN' arrow key	**In Orbit mode** 1) Rotate floorplan down **In Zoom and Pan Mode** 2) Zoom Out	**In Orbit mode** 1) The floorplan will be rotated down about its pivot point. **In Zoom and Pan Mode** 2) Camera will move away from the scene.
'LEFT' arrow key	**In Orbit and Pan mode** Rotate floorplan left	**In Orbit and Pan mode**

		The floorplan will be rotated left about its center.
‘RIGHT’ arrow key	**In Orbit and Pan mode** Rotate floorplan right	**In Orbit and Pan mode** The floorplan will be rotated right about its center.
‘SHIFT’+ LEFT’ arrow key	**In Orbit and Pan mode** Rotate left in y-axis	**In Orbit and Pan mode** Left camera rotation about the y-axis.
‘SHIFT’ + ‘RIGHT’ arrow key	**In Orbit and Pan mode** Rotate right in y-axis	**In Orbit and Pan mode** Left right rotation about the y-axis.
'X' key	Limit mouse rotation to x axis	Only allow mouse rotation in the x axis. Press 'x' or ‘esc’ to exit mode.
'Y' key	Limit mouse rotation to y axis	Only allow mouse rotation in the y axis. Press 'y' or ‘esc’ to exit mode.
'Z' key	Limit mouse rotation to z axis	Only allow mouse rotation in the z axis. Press 'z' or ‘esc’ to exit mode.
'I' key	Zoom In	Camera will move closer to the scene.
'O' key	Zoom Out	Camera will move away from the scene.
‘CONTROL’ + ‘SHIFT’ + ‘C’ Key	Re-render Scene	Re-computes the data and updates the scene.
‘CONTROL’ + ‘SHIFT’ + ‘R’ Key	Refresh Scene	Refresh renderer.
‘CONTROL’ + ‘SHIFT’ + ‘H’ Key	Home View	Reset to default mouse interaction mode and reset camera to original position
‘CONTROL’ + ‘SHIFT’ + ‘F’ Key	Fit Camera	Re-adjust the camera to fit the entire scene using the current camera position.

'CONTROL' + 'SHIFT' + 'T' Key	Top View	Re-adjust the camera to show the scene from top view.
'CONTROL' + 'SHIFT' + 'I' Key	Isolate wall(s)	Isolate all selected walls
'CONTROL' + 'SHIFT' + 'D' Key	Hide wall(s)	Hide all selected walls
'CONTROL' + 'SHIFT' + 'A' Key	Show all	Show all walls after hiding/isolating some
'CONTROL' + 'SHIFT' + 'P' Key	Set pivot point	Set pivot point at the center of selected objects
'CONTROL' + 'SHIFT' + 'Z' Key	Reset pivot point	Set pivot point at the center of the rendering scene
'CONTROL' + 'SHIFT' + '1' Key	Set home view	Set home view to current scene view
'CONTROL' + 'SHIFT' + '2' Key	Reset home view	Set home view to back to default
'CONTROL' + 'ALT' + 'J' Key	Set add control joint flag to true	Clicking on a wall after setting the flag to True will add a control joint on the selected wall. Pressing 'Esc' or clicking on a wall will set the Flag back to False.
'CONTROL' + 'ALT' + 'R' Key	Set add rebar flag to true	Clicking on a wall after setting the flag to True will add a rebar on the selected wall. Pressing 'Esc' or clicking on a wall will set the Flag back to False.
'CONTROL' + 'ALT' + 'O' Key	Set add opening flag to true	Clicking on a wall after setting the flag to True will add an opening on the selected wall. Pressing 'Esc' or clicking on a wall will set the Flag back to False.
'CONTROL' + 'ALT' + 'F' Key	Set free form add opening flag to true	Clicking and dragging the mouse on a wall will draw an opening on the

		selected wall. Pressing 'Esc' or drawing an opening on a wall will set the Flag back to False.
'DEL' key	**In Edit mode** Delete selected object	**In Edit mode** If an opening/rebar/control joint is selected, pressing the delete key will delete the object.

Concepts

Authentication

Your Account

Within the app, log in using the account you created on *revailo.com*. This ensures all your resources are accessible and your actions are saved across devices. You can view your account information by clicking the 'Logout' option in the File menu. To edit your account information, log in at *revailo.com* and visit your account page.

Project Management

Projects

A project contains all the information needed to produce a detailed report, including documents, pages, annotations, material data, material types, assignments, and more. Projects can be shared among organization members and accessed from any computer with Revailo installed. You can create, edit, or delete projects based on your role within your organization and permissions for each project.

Documents

A document represents a PDF, typically a construction project blueprint. Documents usually contain multiple pages with project details, such as floor plans, elevation views, section views, door schedules, and other necessary building information. You can navigate through the documents and annotate pages in the app to create an accurate model of the building. Document management (adding, editing, and removing) is based on your role within each project.

Pages

A page represents one of the pages in a document. Some pages might be irrelevant to your work, so you can unmark them in the "Manage Pages" section in two ways: uncheck the "Display" checkbox to hide pages during navigation, and use the "Analysis" checkbox to include or exclude pages from AI analysis (analyzing all pages takes more time). Each page has a title and subsections, which can be navigated using the Table of Contents and Bookmarks widgets.

Pages can be annotated with walls, openings, scaled regions, notes, hyperlinks, and more, helping you construct your building model. You can also use the "Search Document" widget to locate specific words or annotations.

Page Types

Within a project, there are two main types of pages: Floor Plans and Elevation Views.

Floor Plan pages contain one or more floor plan regions, which are technical drawings showing a top-down view of a building level. These regions are specially analyzed by the AI for walls and floor plan openings.

Elevation View pages contain one or more elevation views, which are orthographic projections showing one side of the building. These pages are analyzed by the AI for openings, such as doors and windows.

During AI analysis, regions are automatically classified as Floor Plan or Elevation View and their pages are classified accordingly. You can also manually mark pages using the “Manage Pages” section or the page navigation buttons.

Construction Specifications

Annotations

Annotations are interactive objects used to mark pages in project documents. They can be generated by AI analysis or added manually. You can view annotations created by AI or by project collaborators, and accept them as your own to include them in your project. Any changes you make to accepted annotations won't affect the collaborator's project.

Some annotations are used to construct the model and generate the project report, including walls, floor plan openings, elevation view openings, and regions. Floor Plan and Elevation View regions need to be scaled (using a diagram scale or a line of known length) to ensure any annotations within them are correctly scaled.

Hyperlinks help you navigate between pages, typically placed on callouts to link areas of a floor plan to a specific section or elevation view.

Notes and **text comments** are used for document markup.

Materials

Materials are used to construct the different Material Types in your project. Each material has properties, including an ID, description, class (e.g., brick, CMU, mortar), dimensions (length, width, height), price per unit, waste factor, and tax rate. You can view materials in a project by checking document section views, schedules, and project notes, and use them to build material types. Materials are typically shared among organization members within the same region and are imported from an organization material database for each project.

Materials have different versions saved with each edit, so changes won't affect projects that used the material in the past.

Material Databases

A material database contains multiple materials. An organization may have several material databases, typically one for each region or state they occupy, where

material data is the same. Material databases are shared among organization members and can only be edited by one member at a time. Each project uses a single material database as its material source.

When creating a new project, you can either select an existing material database from your organization or create a new one based on an existing database. Then, you'll import the required materials into your project.

Material Types

Material Types represent a collection of materials and specifications, and they are assigned to different annotations, forming the construction of your building. For example, for each type of wall in your project, you create a Wall Type, add the materials, specify parameters, and assign this Wall Type to all corresponding wall annotations on the floor plans. The same process applies to Opening Types, Top of Wall Types, and Vertical Schedule Types.

Material Types can also be copied from other projects or collaborators.

Wall Types

A Wall Type is created for each type of wall in a project. It includes a description, abbreviation, shape, height, base elevation, and materials (e.g., outside, inside, wire, cavity, base, anchor, odd course). Wall Types are assigned to wall annotations on Floor Plan pages.

Wall Config

This setting allows the user to define the essential characteristics of a wall. This includes specifying the name, dimensions, and shape.

Outside

The 'Outside' category is designated for the external aspects of a wall. It encompasses elements critical to weather resistance, insulation, and aesthetic finishing. This setting is pivotal in determining the building's exterior appearance and environmental endurance.

Inside

'Inside' pertains to the interior facets of a wall. Key considerations here include aesthetic appeal, soundproofing capabilities, and thermal insulation.

Wire

In the 'Wire' section, users can incorporate wire mesh or reinforcement into the wall structure. This feature is essential for enhancing the wall's strength, stability, and load-bearing capacity, especially in structurally demanding situations.

Cavity

The 'Cavity' type refers to walls with a hollow space between two layers. This construction method is used to improve thermal insulation, manage moisture, and reduce overall wall weight. Users can adjust cavity dimensions and materials.

Base

'Base' deals with the construction of the wall's lower section. This part often requires distinct construction techniques to adequately support the weight above. It includes options for reinforcement and specialized materials to ensure the wall's structural integrity.

Anchor

The 'Anchor' function provides tools for securely attaching walls to floors, ceilings, or adjacent walls. This feature is crucial for ensuring overall structural stability and is particularly vital in regions susceptible to seismic activity or high winds.

Add Odd Course

'Odd Course' allows for the creation of wall layers (courses) that are non-standard in size or alignment. This option is useful for aesthetic design purposes or for accommodating irregularities in wall dimensions during construction.

Odd Course Types

An Odd Course can be created within a Wall Type and is linked to it. It includes a description, abbreviation, shape, height, base elevation, and materials (e.g., outside, inside, cavity, top, base, anchor, rebar/grout). Odd Course Types are directly assigned to their associated Wall Type.

Odd Course Config

This setting in the Odd Course Types section allows users to define the unique parameters for courses that are non-standard in size or alignment. It involves setting the specific dimensions and materials to accommodate unique design elements or structural requirements.

Outside

'Outside' refers to the external aspects of an odd course. It includes selecting materials and styles that are weather-resistant and complement the building's exterior aesthetics. This setting ensures that the odd course integrates seamlessly with the rest of the wall's facade.

Inside

The 'Inside' category focuses on the interior characteristics of an odd course. This involves choices regarding the inner finish, materials, and features that align with the interior design and functionality, such as insulation or acoustic properties.

Cavity

'Cavity' in odd courses pertains to the incorporation of a hollow space or cavity within the course. This is used for enhanced insulation, moisture control, or to reduce the weight and material usage in the wall construction.

Top

The 'Top' setting relates to the uppermost part of an odd course. It allows users to specify materials and construction methods for the top layer, ensuring it provides adequate protection, support, and aesthetic value to the wall.

Base

'Base' deals with the construction and materials used at the base of an odd course. This is crucial for ensuring the stability and alignment of the course, especially since odd courses may have different structural requirements due to their non-standard design.

Anchor

The 'Anchor' option is for integrating anchoring elements into the odd course. These are essential for securing the course to the rest of the wall structure, providing necessary support and alignment, especially in non-standard construction scenarios.

Rebar/Grout

In 'Rebar/Grout', users can plan for the reinforcement (using rebar) and filling (using grout) of odd courses. This is crucial for enhancing the structural integrity and cohesion of the course, especially important in non-standard or irregular wall sections.

Opening Types

An Opening Type is created for each type of opening in a project (e.g., doors and windows). It includes a description, abbreviation, shape, height, length, base elevation, materials (e.g., outside, inside, lintel/bond beam, caulking, in-fill), and vertical schedule rules. Opening Types are assigned to opening annotations on Elevation View pages and floor plan opening annotations on Floor Plan pages, or they can be added directly to a wall in the Elevation View tab.

Opening Config

This setting in the Opening Type section allows users to define the specific parameters of an opening in a wall. This includes dimensions, shape, and placement. It acts as a guide for creating doorways, windows, or other openings in accordance with design requirements.

Outside

The 'Outside' category focuses on the external aspects of an opening, including the selection of header, steel lintel, front of beam, frame, jamb, and sill. These elements are crucial for complementing the building's exterior aesthetics, ensuring weather resistance, and providing structural support to the opening.

- Header: This is the horizontal support that spans the top of the opening, critical for structural integrity.
- Steel Lintel: Steel lintels are strong, durable supports for openings in masonry walls, available in various profiles to accommodate different structural requirements and aesthetic preferences.
- Front of Beam: Emphasizing aesthetics and structural support, the Front of Beam category involves the visible integration of beams at openings, enhancing the building's facade with materials and designs that align with the architectural style.
- Frame: The external frame supports the entire opening structure and is integral to the building's facade.
- Jamb: The jambs are the vertical sides of the frame on the outside, providing a seal against weather elements.
- Sill: The sill forms the bottom part of the opening, often designed for water drainage and aesthetic appeal.

Inside

'Inside' pertains to the interior characteristics of an opening. This includes internal finishing of the header, BB/Precast/Odd, steel lintel, front of beam, frame, jamb, and sill, focusing on aesthetics and functional features like soundproofing or thermal insulation.

- Header: The interior header is part of the load-bearing structure and can be a decorative element.
- BB/Precast/Odd: This includes interior-specific precast components and bespoke items that enhance the functionality and aesthetics of an opening, providing unique design solutions and improved interior environment quality.

- Steel Lintel: Inside, steel lintels can be concealed or exposed as part of the interior design, potentially serving as a distinctive architectural feature while contributing to structural integrity and insulation.
- Front of Beam: The interior aspect focuses on the aesthetic presentation and functional integration of beams within the space, enhancing the overall architectural design and possibly aiding in sound and thermal insulation.
- Frame: The interior frame is key to the opening's visual integration with the room's design.
- Jamb: Interior jambs are the vertical sides that often house sealing mechanisms for thermal and sound insulation.
- Sill: Inside, the sill may serve as a decorative ledge or element of the window design.

Caulking

In 'Caulking', users plan for the sealing of gaps in openings to prevent air and moisture infiltration, vital for improving energy efficiency and protecting from weather damage.

In-Fill

The 'In-fill' setting relates to the material or structure used to fill the space within an opening, such as glass in windows or panels in doors, with options for various materials and designs.

Vertical Schedule

'Vertical Schedule' allows planning and coordination of multiple openings along the vertical axis, essential for aesthetic harmony and structural balance in multi-story buildings.

Top of Wall Types

A Top of Wall Type is created for each group of materials placed on top of walls in a project. It includes a description, abbreviation, and materials for coping, flashing, anchor bolts, dowels, and fire safeing. Top of Wall Types are assigned to wall annotations on Floor Plan pages and can be visualized in the Top of Wall View.

Top of Wall Config

This setting in the Top of Wall Type section allows users to specify the name of the top portion of a wall.

Coping

'Coping' refers to the protective cap or cover placed on the top of a wall. This feature is essential for preventing water penetration and providing a finished look. Users can choose from various materials to match the building's design and enhance durability.

Flashing

In the 'Flashing' option, users can add a layer of material to the top of the wall to prevent water ingress. Flashing is critical for directing water away from the wall, thus preventing potential damage caused by moisture and ensuring the longevity of the wall.

Anchor Bolt

The 'Anchor Bolt' setting is for incorporating bolts that secure the wall to the roof or other structures. These bolts are pivotal for enhancing the structural stability of the wall, especially in areas prone to high winds or seismic activity.

Dowel

'Dowel' involves the use of cylindrical rods (usually steel) to reinforce the top of the wall. Dowels are inserted into the wall to provide additional structural support and alignment, particularly important in load-bearing walls or where vertical expansion is anticipated.

Fire Safeing

The 'Fire Safeing' feature allows users to include fire-resistant materials or treatments at the top of the wall. This is crucial for enhancing the fire safety of the building, preventing the spread of fire, and complying with building codes and safety regulations.

Vertical Schedule Types

A Vertical Schedule Type is created for each vertical schedule in a project. It includes a description, abbreviation, rebar material and placement rules, grout material, and control joint materials. Vertical Schedule Types are assigned to wall annotations on Floor Plan pages. In the Elevation View tab, you can place individual rebar pieces, adjust their placement, and add or remove grout from specific CMU cells.

Vertical Schedule Config

This setting in the Vertical Schedule Type section allows users to specify the name of the vertical schedule.

Rebar/Grout

'Rebar / Grout' pertains to the reinforcement and filling aspects of vertical structures. Users can specify the type, size, and placement of rebar (reinforcing steel bars) for added strength. The grout option allows for the selection of materials to fill gaps and bind construction elements, enhancing stability and cohesion.

Control Joint

The 'Control Joint' setting is designed for incorporating planned points of weakness in masonry or concrete structures. These joints allow for thermal expansion and contraction, reducing the risk of uncontrolled cracking due to temperature changes or other environmental factors. Users can define the placement and specifications of these joints to ensure structural integrity and longevity.

Corner Types

A Corner Type is created for each type of corner in a project. It includes a description, abbreviation, height, base elevation, and materials (e.g., outside, inside, odd course). Corner Types are assigned to corners (where 2 walls intersect) on Floor Plan pages.

Corner Config

This setting allows the user to define the essential characteristics of a corner. This includes specifying the name and dimensions.

Outside

The 'Outside' category is designated for the external aspects of a corner. It encompasses elements critical to weather resistance, insulation, and aesthetic finishing. This setting is pivotal in determining the building's exterior appearance and environmental endurance.

Inside

'Inside' pertains to the interior facets of a corner. Key considerations here include aesthetic appeal, soundproofing capabilities, and thermal insulation.

Add Corner Odd Course

'Corner Odd Course' allows for the creation of wall layers (courses) for the corner that are non-standard in size or alignment. This option is useful for aesthetic design purposes or for accommodating irregularities in wall dimensions during construction.

Corner Odd Course Types

A Corner Odd Course can be created within a Corner Type and is linked to it. It includes a description, abbreviation, height, base elevation, and materials (e.g.,

outside, inside). Corner Odd Course Types are directly assigned to their associated Corner Type.

Corner Odd Course Config

This setting in the Corner Odd Course Types section allows users to define the unique parameters for courses that are non-standard in size or alignment. It involves setting the specific dimensions and materials to accommodate unique design elements or structural requirements.

Outside

'Outside' refers to the external aspects of an odd course. It includes selecting materials and styles that are weather-resistant and complement the building's exterior aesthetics. This setting ensures that the odd course integrates seamlessly with the rest of the wall's facade.

Inside

The 'Inside' category focuses on the interior characteristics of an odd course. This involves choices regarding the inner finish, materials, and features that align with the interior design and functionality, such as insulation or acoustic properties.

AI (Artificial Intelligence)

Our AI engine semi-automatically extracts annotations, Material Types, page types, and a table of contents from your project documents within minutes. When you create a project, the AI engine immediately begins to analyze your documents, and when finished, will annotate your document, and create Material Types, saving you potentially hours of work.

AI Annotations

Our AI engine can extract Floor Plan and Elevation View regions (and their scales), wall annotations, floor plan opening annotations, elevation view opening annotations, and hyperlink annotations from your documents. AI annotations will not be considered part of your project and will not be included in the project report until you have confirmed them (explained here). You can toggle the visibility of all AI annotations using the checkbox in the AI progress menu.

AI Material Types

Our AI engine can currently extract Opening Types from a document’s door schedule. If a document has a door schedule, Opening Types will be created for each row of the table, with the description, height and length of the door already set. You must confirm each AI Opening Type to make it part of your project, at which point you can edit the Opening Type.

Collaboration (coming soon)

~~Our app allows for collaboration on a project between multiple members of an organization. This can allow for work to be done by different members on different sections of a project or work to be done by one member and verified by another member. This also allows for the ability to outsource work to an external source and then verify and finish the work internally. This is all enabled through connection to our cloud services.~~

~~Collaboration is done by inviting other organization members to an existing project. It is important to note that when organization members are collaborating on a project, they can view each other's work, but they are not able to modify each other's work. Each collaborator can copy another collaborator's work, at which point it becomes their own and they are able to modify it. The collaborator will not be able to see work copied from their own version of the project.~~

Collaborator Annotations (coming soon)

~~You can view a collaborator's Floor Plan and Elevation View regions, wall annotations, floor plan opening annotations, and hyperlink annotations. Much like AI annotations, collaborator annotations will not be considered part of your project and will not be included in the project report until you have confirmed them. If the annotation is assigned a Material Type that you have not accepted into your project, you will be asked to review that Material Type before confirming the annotation.~~

Collaborator Material Types (coming soon)

~~You can copy any type of Material Type from a collaborator. You can review each Material Type and accept it, at which point it will become part of your version of the project and you can begin to edit it, if needed. If either you or the collaborator edits the Material Type after you have accepted it, it will be considered a different Material Type (except for a description change), and it will appear again in the collaborator's Material Type list.~~

Cloud Services

Our app utilizes cloud services, allowing you to access your work from anywhere. All your data will be backed up on the cloud, so you can begin working on a project in the office and continue your work at home just by logging into your account. Your progress is periodically synced to the cloud, or you can manually save your work.

Working Offline

Although our app does connect to cloud services which require internet connection, we also allow you to work offline for an extended period. As long as you remain logged in, you will be able to work on your most recent project. Certain features that require an internet connection, such as AI analysis and collaboration, will be

unavailable, but the core features of the app will be functional. The next time you connect to the internet, your progress will be saved and backed up in the cloud.

Glossary

BIM (Building Information Modeling): A digital representation of physical and functional characteristics of a facility. BIM is a shared knowledge resource for information about a facility, forming a reliable basis for decisions during its lifecycle.

Elevation View: A drawing that shows one side of a building or structure, typically used to provide a specific view of the façade or a side wall.

Section View: A representation of a building or object as if it has been cut through a particular plane. This is used to show internal structures within the building or object.

3D Rendering View: A 3D representation of a building or object. This is used to show the global aspect and shape of the building or object.

Change Order: A document used to record an amendment to the original construction contract, including changes in scope, price, time, or other terms.

API (Application Programming Interface): A set of routines, protocols, and tools for building software applications. In the context of construction software, APIs may be used for integration with other software tools.

Markup Tools: Tools within the software that allow users to annotate drawings or documents.

Scale Box: A tool used to define a 3D zone in which certain views or elements must be contained, often used to standardize the size and shape of views throughout the project.

Clash Detection: The process of identifying where different building systems (e.g., electrical, mechanical, structural) interfere with each other in a building model.

Layer Management: The practice of organizing different elements of a drawing or model on separate layers which can be independently controlled and viewed.

Parametric Modeling: A type of modeling where the geometric shapes are defined by parameters and mathematical formulas, allowing for easy manipulation and changes by adjusting the inputs.

IFC (Industry Foundation Classes): An open, standardized data format used to describe, exchange, and share building and construction information across different software applications. It enables interoperability in Building Information Modeling (BIM) and facilitates collaboration among various stakeholders in construction projects.

Contact Information

For any questions, feedback, or bug report, please refer to our website at revailo.com. You will find a contact form there.

You can also send us an email at support@revailo.com.

Address:

3440 S Dearborn St Suite 130S, Chicago, IL 60616

Phone number:

(773) 729-7482