Bluebeam® Revu®

Training Manual

A Guide to Learning the Basics of Bluebeam Revu

Bluebeam Revu Training Manual

A Guide to Learning the Basics of Revu

This guide is designed to help you learn the basics of using Bluebeam Revu. This is not a comprehensive manual that covers all features of the software. If you need further support and guidance, please visit our Online Help Guide at www.bluebeam.com/us/support/help.asp.

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For use with Revu 2015

Table of Contents

Installation

What are the system requirements?

Operating System

Revu is supported on the following Operating Systems:

- Windows 7 SP1 (32-bit and 64-bit)
- Windows 8 (32-bit and 64-bit)

As part of the installation, the .NET Framework 4.5 will be installed if it does not already exist on the workstation. Further information about the .NET framework may be found here.

Hardware

The requirements specified below are suitable for both desktops and tablet PCs.

Minimum Requirements

Display

1024 x 768

RAM

2+ GB (see discussion below)

Hard Disk

Up to 1.2GB of available space may be required

Processor

1GHz Pentium processor or equivalent (recommended, see discussion below)

Using Revu for working with typical Office documents

When using Revu for general office applications, a standard, general class computer may be used. A system qualified to run Windows 7 SP1 and Windows 8 would be a typical recommended configuration. For systems using 32-bit Windows 7 SP1 or Windows 8 , a bare minimum of 2GB is recommended. For running 64-bit Windows 7 SP1 or Windows 8, a minimum of 4GB is recommended.

Using Revu for working with large sets of engineering documents

When working with large drawing sets (for example, construction project bid sets) in which the PDFs may contain many hundreds of large format drawings, it is recommended that workstations have adequate memory and processor resources. A recommended hardware configuration would be an Intel i5 Dual Core 3.2GHz, Quad Core 2.3 GHz or better processor, as well as 8 GB of RAM. Revu can run on systems with lower specifications, however a workstation with these settings will provide the optimal performance.

How to download and install Revu?

Revu can be downloaded from the Bluebeam.com website: http://bluebeam.com/us/products/

Download the latest installation guide here: http://bluebeam.com/us/support/_media/installation-guide-revu.pdf

How to register Revu?

After you purchase the software, you will receive an email containing your License Certificate (the email will come from registration@bluebeamops.com). The License Certificate will contain your serial number and product key.

The next step of the registration process is to authorize the software. This process will register the software to an individual workstation. Complete the online authorization process below if the computer is connected to the Internet, or manually authorize if the computer is offline.

To access the Registration screen

- From the Revu interface:
    1. Open Revu.
    2. Select the **Help** menu, then click **Register**.
- From the Bluebeam Administrator:
    1. Open the Bluebeam Administrator.
    2. From the **Tools** menu, click **Register**.

Completing registration on a computer that is...

- Connected to the Internet:
    1. Enter the **Serial Number**, **Product Key** and computer name. The computer name will assist in tracking multiple licenses at a site.
    2. Click **Register**. The required information will be communicated back to the Bluebeam server in order to authorize the software.

3. Authorization is complete. (If the authorization does not complete, follow the steps below.)

- Connected to the Internet, but behind a firewall or the online registration fails:
  1. Enter the **Serial Number** and **Product Key** and click **Register**.
  2. Click **Get Authorization Code Manually**, enter the computer name and then click **Continue**.
  3. Click the hyperlink at the top of the window. A web browser will open and connect to Bluebeam.com.
  4. Review the information in the browser and click **Get Authorization Code**. Your authorization code will display on the next page.
  5. Enter the code from the browser into the **Manual Authorization** window and click **Authorize**.
  6. Authorization is complete.
- Not connected to the Internet:
  1. Enter the **Serial Number** and **Product Key** and click **Register**.
  2. Click **Get Authorization Code Manually**, enter the computer name and then click **Continue**.
  3. Copy down the **Serial Number**, **Product Key** and **Security ID**.
  4. From a machine with Internet access, open a web browser and browse to https://activation.bluebeam.com/.
  5. Type your **Serial Number**, **Product Key**, **Security ID** and **Computer Name**.
  6. Click **Get Authorization Code**. Your Authorization Code will display on the next page.
  7. Copy down the Authorization code and return to the computer where you are installing the software. Type the Authorization code into the **Manual Authorization** window and click **Authorize**.
  8. Authorization is complete.

If you have problems with the registration, contact Bluebeam Support at support@bluebeam.com. Please include your serial number, product key and Security ID in the email message.

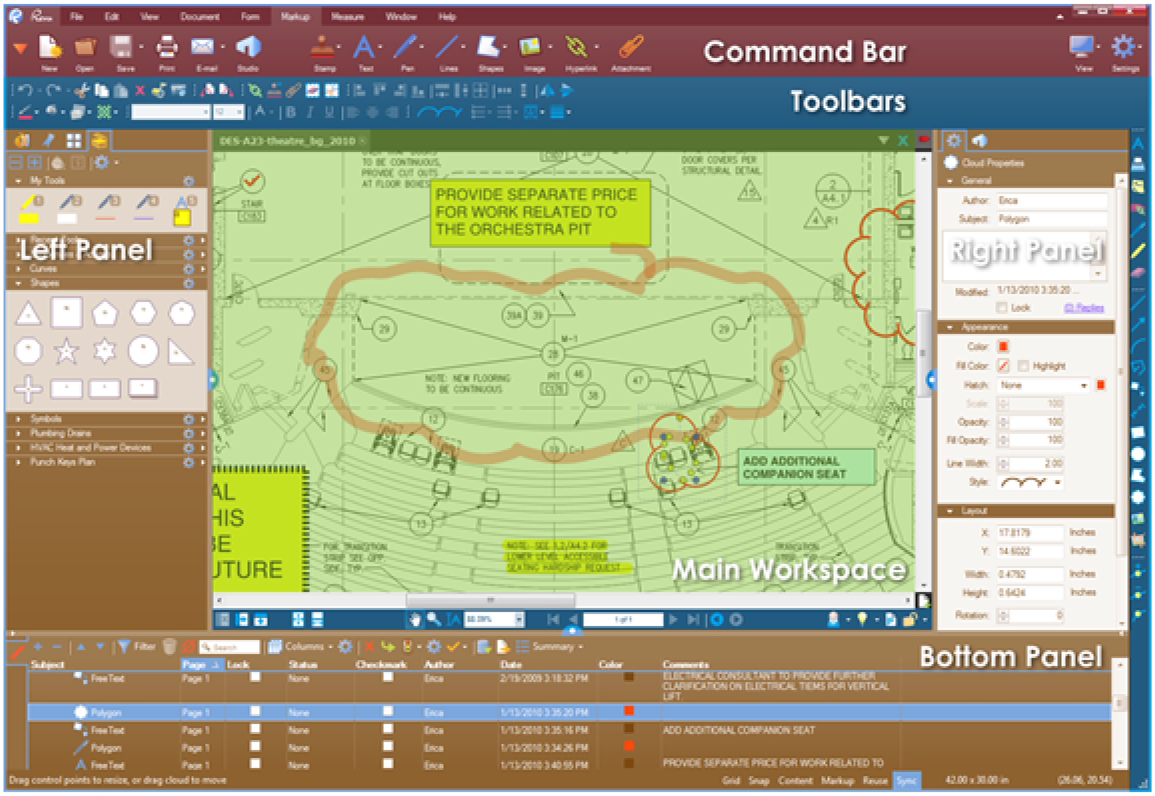
Who do I contact for help?

Contact Bluebeam support directly from our website at http://bluebeam.com/us/support/contact.asp.

Revu Interface Navigation and Profiles

Getting Around the Interface

Application Layout



At the top of the Revu window you will see the **Command bar**. The Command bar provides access to tools and commands organized by group. It is customizable. Below the Command bar and to the right edge are optional **Toolbars**. These toolbars provide customizable, one-click access to the tools you need most.

PDFs appear in the **Main Workspace**. Multiple PDFs can be opened at the same time, each in its own tab, allowing you to easily switch between PDFs.

There are three **Panels** around the Main Workspace which contain a number of tabs. These tabs provide quick access to tools for viewing, navigating, annotating, and gathering information from a PDF. Revu provides Left, Right, and Bottom Panels and places commonly used tabs in them by default, but you can freely move any tab to any panel, and it is even possible to detach a tab into a floating panel for more flexibility. To detach a tab, click and drag it off the panel area. Once you create a floating panel, any number of tabs may be added to the panel.

Below the Main Workspace but above the bottom panel, notice the Navigation bar, which contains tools to help navigate documents. This bar is customizable like a toolbar. At the very bottom of the application window, below the bottom panel, is the **Status bar**, which contains additional information and tools to help you interact with PDFs smoothly.

Customizing Panels

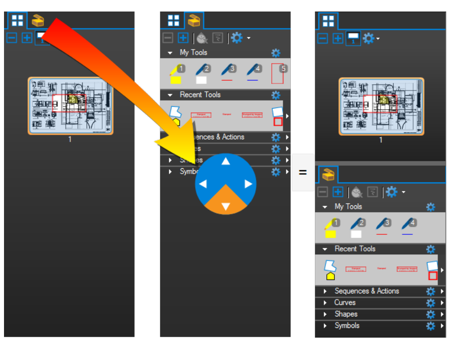
Right-click on any tab to access a context menu. You can use this menu to **Show** other Tabs, **Hide** the current tab or **Attach** the current tab to another location by selecting one of the options. The **Show** option reveals a list of available tabs. The **Attach** submenu reveals the three panel locations (**Left**, **Right**, and **Bottom**) and the option to **Detach** and float over the workspace.

Positioning Tabs Within Panels

Panels can be split into multiple areas to allow accessing multiple tabs in the same panel at the same time. This maximizes the usable space in the panels.

1. Click the icon of the tab you wish to move and drag it into the panel until the **Position Wheel** appears.
2. Drag the tab over the area of the **Position Wheel** corresponding to the section of the panel where you want the tab to go, and release.

In the following example, the Tool Chest is dragged below the thumbnail view so that both tabs may be shown at once. Use the **Position Wheel** to define other placements, such as *side-by-side* or *above*, in addition to the *below* setting shown.



The configuration of the workspace is saved so that the next time a session of Revu is started, the layout will not have to be re-configured.

The bottom panel can overlay the left and right panels. Click the small arrows (&) on the panel border to toggle this setting. Expanding in this manner enables more columns to be displayed in the Markups list.

Navigation Bar

The Navigation bar is located between Revu's Main Workspace and the Bottom Panel. The Navigation bar enables efficient movement between pages and views in the Main Workspace. The Navigation bar is separated into a left, center and right section.

Left Section

Unsplit: Eliminates the current split.

Split Vertical: Engages MultiView™ and divides the workspace into two vertically oriented splits.

Split Horizontal: Engages MultiView™ and divides the workspace into two horizontally oriented splits.

One Full Page: Engages a single-page view of the PDF. The mouse wheel will zoom in and out of the page.

Scrolling Pages: Engages a scrolling-pages view of the PDF. The mouse wheel will scroll up and down the pages.

Center Section

Pan (SHIFT+V): Click and drag to pan the image.

Select (V): Use to select one or more markups.

Zoom (Z): Click to zoom in; hold CTRL and click to zoom out. Click and drag a rectangle to make that area fill the screen.

Select Text (SHIFT+T): Click and drag to select text within a region.

First Page (HOME): Click to jump to the first page of the PDF.

Previous Page (CTRL+LEFT ARROW): Click to go to the prior page of the document.

: Indicates the current location in the PDF.

Next Page (CTRL+RIGHT ARROW): Click to go to the next page of the current document.

Last Page (END): Click to jump to the last page of the document.

Previous View (ALT+LEFT ARROW): Click to go back to the previous view in the main workspace.

Next View (ALT+RIGHT ARROW): Click to go to the next view in the main workspace.

Right Section

Profiles: Opens the Profiles menu.

Dimmer (CTRL+F5): Toggles on or off the Dimmer function.

Document Properties (CTRL+D): Opens the Document Properties dialog box.

Security (CTRL+L): Shows the current Security setting of the PDF and allows you to Change Permissions.

Status Bar

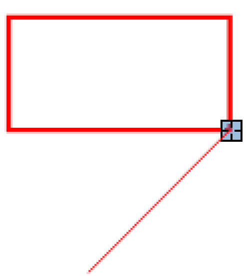
The Status bar is located at the bottom of the Revu desktop. The left side includes prompts to help you use the current command or tool. The right side includes the size of the current PDF page and the current cursor position.

To show the Status bar, go to **View** > **Interface** > **Status Bar**, or press F8.

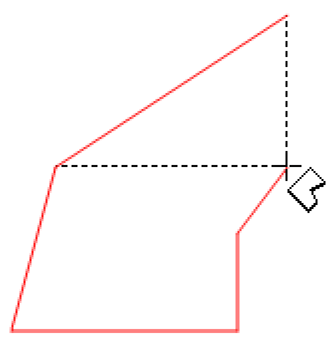
There are six toggle buttons on the Status bar that switch features on and off:

- **Grid** (SHIFT+G): When enabled, a visible grid is overlayed on PDFs in the main workspace. Grid spacing is configured through the Grid & Snap Preferences.
- **Snap** (CTRL+SHIFT+F9): When enabled, any points used to define a markup line up are forced to line up with the grid (even if the grid is not currently visible). The grid spacing is configured through the Grid & Snap Preferences.
- **Content**: When enabled, markups automatically snap to the underlying PDF vector content. Snap to Content does not snap to text or images in the PDF, only vector images such as lines and shapes. The exact elements that are snapped to are set in the Grid & Snap Preferences.
- **Markup**: When enabled, markups automatically snaps to other markups in the PDF. Two related behaviors will occur: the cursor will snap to points on other markups (similar to how Snap to Content snaps to points in the PDF content) and Revu will also show—and the cursor will snap to—guidelines that are based on lines in nearby markups. The exact elements that are snapped to are set in the Grid & Snap Preferences.

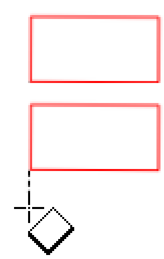
Snap to a point



Guidelines creating a Polygon



Guideline creating aligned Rectangles



- **Reuse**: When enabled, after placing a markup, the same markup can be added to the PDF without having to reselect it. This mode is helpful when adding the same markup onto the PDF sequentially.

- **Sync**: When enabled, Revu synchronizes the viewing windows when displaying PDFs in side-by-side Split View mode or in a detached window. This is useful when you need to compare two different versions of the same document. Moving the document in one window will automatically adjust the view in the second window.

Working with Profiles

Profiles provide an easy way to store the toolbar, menus, and other display settings within Revu. Profiles can also be used to shape the User Interface of Revu for particular job functions within an organization. For example, a simplified interface for users who view, but do not need to edit, PDFs can be created by turning off most of the toolbars and tabs within Revu and maximizing viewing space. A profile like that could be easily tweaked by turning back on some basic markup toolbars and tabs, without the more advanced editing functions, to create a profile for users who need some basic markup capabilities.

- Preloaded Profiles
- Changing Profiles
- Managing Profiles
- Creating Custom Profiles
- Saving Changes to a Profile

Preloaded Profiles

Revu comes preloaded with several Profiles that are geared toward specific jobs and functions, including:

Advanced: For users who need a broad range of advanced markup features and precise control over markups and measurements and their properties.

Construction: For construction professionals who work with large drawing sets and smart documents and need robust markup, editing, and collaboration tools.

Design Review: For users who need in interface tailored for design review and collaboration with customizable tool sets that contain essential features for drawing navigation, markup and measurement.

Office: For users who review and proofread documents and need the most frequently used markup and editing tools with a simplified interface.

Oil & Gas: For users working with piping & instrumental designs (P&IDs) and process flow diagrams (PFDs) who need specialized tool sets geared toward those tasks.

Punch: For users completing a punch process.

Simple: For users who need to maximize screen space for viewing PDFs but also want to access the Command bar and document tabs for quick navigation between files.

Tablet: For tablet PC user, this Profile reorients the interface vertically and exposes only key markup and editing tools to maximize screen space while panning, zooming, writing and drawing with a tablet PC stylus.

Takeoff: For estimators and specifiers who need to view plans and specs, conduct quantity takeoffs or add markups to their PDF files.

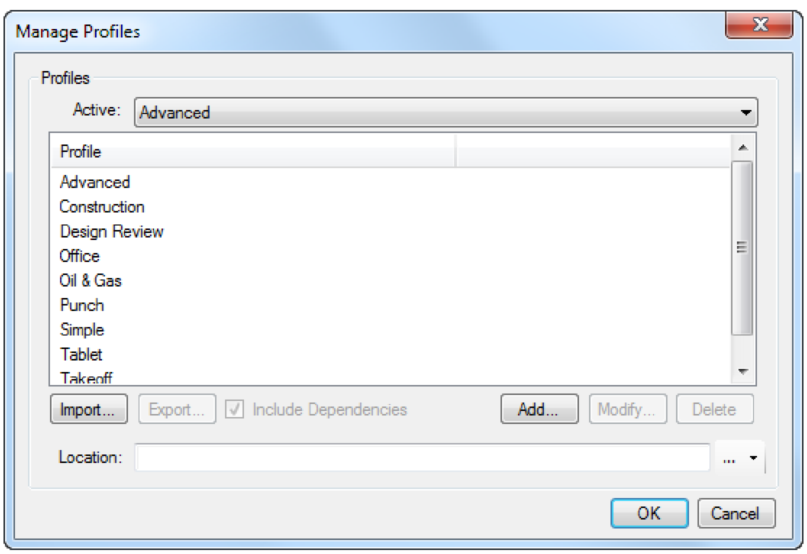
Changing Profiles

Click the arrow to the right of the **Profiles** button from either **View** > **Profiles** or from the Navigation bar (use the keyboard shortcut F4 to show it if it's hidden) to prompt a list of available Profiles. The Profile that is currently active will be checked. To change Profiles, simply select another one from the menu. Once selected, the Revu interface will update based on the settings defined in the new Profile.

Managing Profiles

There are several functions available from the **Manage Profiles** dialog box, including renaming existing profiles, adding new profiles, importing and exporting profiles, and deleting profiles.

Go to **View** > **Profiles** or click **Profiles** on the Navigation Bar to open the **Manage Profiles** dialog box.



Active: Switch between active profiles by selecting from this dropdown list.

Import: Click to import an existing profile saved on a local or network drive.

Note: Double-clicking a .bpx file from Windows Explorer will automatically import it.

Export: Click to export a selected profile. This option is only available when a profile is selected from the **Profile** list.

> **Include Dependencies**: Embeds tool sets, bookmark Structures™ (eXtreme only), hatch patterns and line style sets in the exported Profile.

Add: Click to name the current configuration and add it as a profile. See Creating Custom Profiles for more details.

Modify: Click to rename a selected profile. This option is only available when a profile is selected from the **Profile** list.

Delete: Click to delete a selected profile. This option is only available when a profile is selected from the **Profile** list.

Location: Define the location of shared, centralized profiles. Click the ... button to the right of the field to browse to the centralized location. Any new or modified profiles stored in this location will be immediately available. They cannot, however, be permanently modified by individual users: any changes a user makes to a shared profile only affect that user and are lost when Revu is closed.

When going offline, users can continue to use the shared profile that was active when they went offline. The user would not receive updates to the profile until they went back online, however. Similarly, other shared profiles would be available to an offline user, but might have reduced functionality (notably, some tool sets might be unavailable).

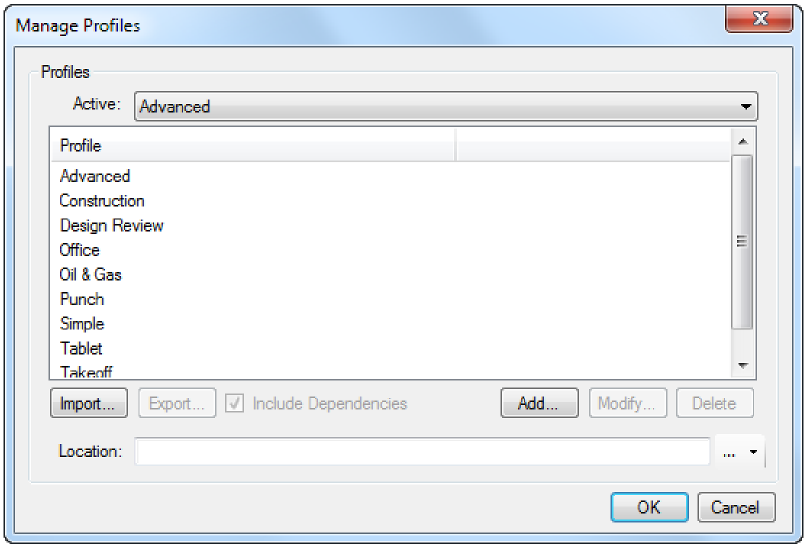
Note: Users can save modified, local copies of shared profiles by clicking **Add**. Such profiles will not be available to other users and will not benefit from updates made to the centralized profile.

Creating Custom Profiles

In addition to the default Profiles that come with Revu, users can create Profiles that are tailored specifically to their needs.

To create a custom Profile:

1. Configure the Revu interface as desired, arranging toolbars, tabs, panels and so on as needed. This configuration will be the custom Profile.
2. Go to **View** > **Profiles** or click **Profiles** on the Navigation Bar to open the **Manage Profiles** dialog box.



3. Click **Add**. The **Add Profile** dialog box opens.
4. Enter the name of the custom Profile in the **Name** field and click **OK**. The **Add Profile** dialog box closes and the new Profile is added to the **Profiles** list and selected as the active Profile.
5. Click **OK** to close the **Manage Profiles** dialog box.

Saving Changes to a Profile

To save changes to a Profile:

1. Click the arrow to the right of the **Profiles** button from either **View** > **Profiles** or from the Navigation bar (use the keyboard shortcut F4 to show it if it's hidden) and select the desired Profile.
2. Make any desired changes to the Revu interface, then go to **Profiles** > **Save Profile**. The selected Profile will be replaced with the current interface configuration.
   - Changes to a Profile are also saved automatically when Revu is closed.

File Access Tab

The File Access tab provides quick access to recently opened files, your workstation's file system, and bFX files from one convenient location.

Go to **View** > **Tabs** > **File Access** or press ALT+A to open the **File Access** tab.

- File Access Toolbar
- Hyperlinking From the File Access Tab

File Access Toolbar

The File Access toolbar switches the File Access tab among three modes and allows one-click reopening of the last session's files.

Recent Files: This mode provides quick access to previously opened files. See File Access Tab – Recent Files Mode for more information about using the File Access tab in this mode.

Explorer: This mode provides quick access to locally stored files. See File Access Tab – Explorer Mode for more information about using the File Access tab in this mode.

File Exchange: This mode tracks and manages PDF markups utilizing Bluebeam's proprietary .bfx file format. Select the .bfx file from your provider to begin.

Reopen files from last session: Opens all the files that were opened in the entire previous Revu session, from the time Revu was last opened to when it was closed. Each file is opened and viewed in the same way that it was when the file was closed.

Hyperlinking From the File Access Tab

A Hyperlink can be created to a file directly from the File Access tab while in Recent Files mode or Explorer mode.

To create a Hyperlink:

1. Open the PDF on which you wish to create the hyperlink.
2. Hover over the file name you wish to create the hyperlink to in the File Access tab's Recents list or Explorer list.
3. Click the **Hyperlink** icon that appears to the right of the file name.
4. Click and drag to define the hyperlinked area on the opened PDF.

File Access Tab - Recent Files Mode

The Recent Files mode of the File Access tab provides quick access to files that you have opened in the past. In this mode, there are three sections of the File Access tab: Pinned, Categories, and Recents.

Recents is generated automatically. Pinned and Categories are populated with files that you add. Each of the three section and the groups within those sections can be collapsed or expanded so the list is easier to navigate.

On the File Access toolbar, click **Recent Files** to access Recent Files mode.

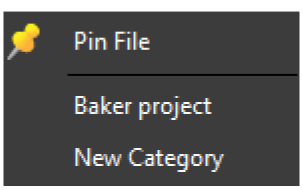
- Pinned Section
    - Sorting the Pinned list
- Categories Section
- Recents Section
    - Sorting the Recents list

Pinned Section

The Pinned section contains files that you have marked so they will not drop out of the Recents list. This allows you to keep a list of files that you use frequently. Files can be pinned from the Recents list or from the Explorer.

To pin a file:

1. In the **Recents** list or while in Explorer mode, hover over the file you want to pin.
2. Click the **Pin** icon to the right of the file's name. A menu appears.

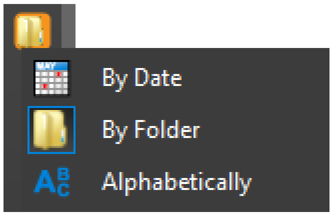


3. Select **Pin File**.

Pinning a file adds it and its folder to the **Pinned** section. The **Pinned** section will be appear if it was not visible.

Sorting the Pinned list

To sort the Pinned list, click the icon on the right side of the Pinned section divider and select the desired sort option: **By Date**, **By Folder**, or **Alphabetically**.



The sort icon changes to show its current setting.

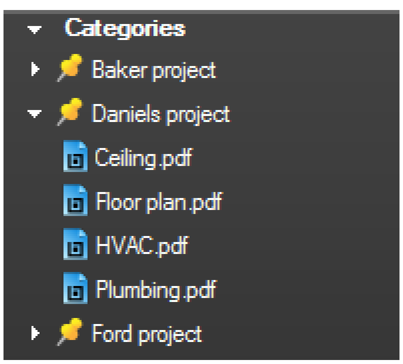
By Date: Files are arranged in a single list with the most recently opened files at the top.

By Folder: Files are arranged by the folder in which they reside, with the folder name displayed above the file name. The folders are sorted alphabetically using the drive letter and the folder name. For example, C:\Zero will be sorted above D:\Alpha. Click the triangle to the left of the folder name to collapse or expand that section. Click the folder name to open that folder.

Alphabetically: Files are arrange in a single list, alphabetically by file name.

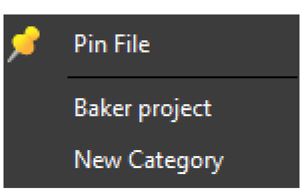
Categories Section

The Categories section allows you to pin files into groups that you define. This allows you to group files together that are not in the same folder or drive and to organize your pinned files so that they are easier to access. The Categories and the files in each category are sorted alphabetically by name.



To add a file to the Categories list:

1. In the **Recents** list or while in Explorer mode, hover over the file you want to categorize.
2. Click the **Pin** icon to the right of the file's name. A menu appears.



3. Select an existing category or **New Category**, as desired.
4. If you chose New Category, enter a name and click **OK**.

Click the category name to expand or collapse that category. Right-click on the category name to **Expand**/**Collapse**, **Rename** or **Remove** the category.

Right-click on the Category section divider to **Collapse All**, **Expand All**, or **Clear All Categories**.

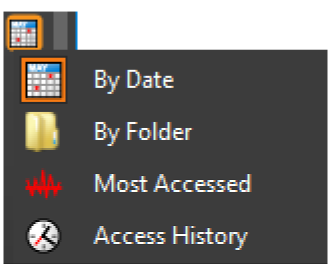
Recents Section

Recents is an automatically generated list of files that have recently been opened. The Recents list has a maximum number of files it will remember. Further, a predefined amount of time that files will remain in the Recents list can be set. Both of these settings are found in File Access Preferences. Individual files can be manually removed from the Recents list or the entire Recents list can be cleared manually.

The Recents list shows the file name. Hover over the file name to show the full file path and a preview image of the file. The preview image can be disabled under File Access Preferences, if desired. Click a file to open it or right-click on a file name to open the file, open the folder the file is in, or remove the file from the Recents list.

Sorting the Recents list

To sort the Recents list, click the icon on the right side of the Recents section divider and select the desired sort option: **By Date**, **By Folder**, **Most Accessed** or **Access History**.



The sort icon changes to show the currently selected sort option.

By Date: Files are arranged in a single list with the most recently opened files at the top.

By Folder: Files are arranged by the folder in which they reside, with the folder name displayed above the file name. The folders are sorted alphabetically using the drive letter and the folder name. For example, C:\Zero will be sorted above D:\Alpha. Click the triangle to the left of the folder name to collapse or expand that section. Click the folder name to open that folder.

Most Accessed: Files are arranged by the number of times each file has been opened with the most commonly opened file at the top.

Access History: Files are arranged by when they were last opened, grouped in sections like **Today**, **Yesterday**, **One Week Ago**, and so no, similar to the History in a web browser. Click a section name to expand or collapse that section.

To remove a file from the Recents list, right-click on the file and select **Remove**.

To clear the Recents list, right-click on the Recents section divider and select **Clear All Recents**.

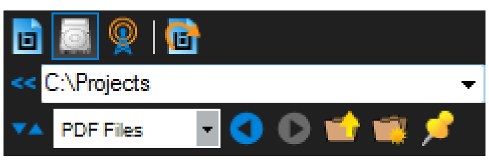
File Access Tab - Explorer Mode

The Explorer mode on the File Access tab provides access to the files on your computer and network within Revu, without using Windows Explorer or **Open**.

On the File Access toolbar, click **Explorer** to access Explorer mode.

- Explorer Toolbar
- The Explorer File List
- Context Menu

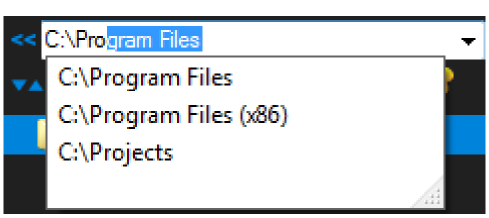
Explorer Toolbar



Path List: The Path List provides a quick way to navigate to local and network folders. To navigate to a known location, simply enter the path in the **Path List** field. As you do, the name will autocomplete and a list of folder names that match what you have entered will be shown. Use the UP ARROW and DOWN ARROW keys to select from the autocomplete list. Press ENTER to navigate to the folder that is currently selected.

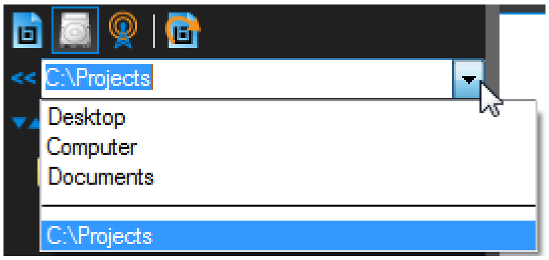
Path List

Autocomplete

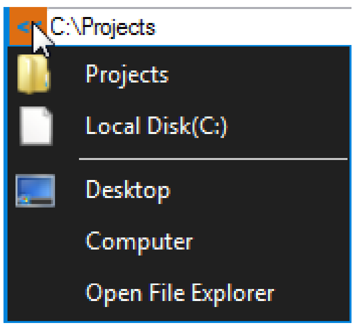


Click the down-arrow button to reveal Path List favorites. **Desktop**, **Computer**, and **Documents** are automatically saved as favorites at the top of the list. Folders that you have Pinned will appear below them.

Expanded Path list



To show a list of drives and folders that can be accessed in Explorer mode, click the double-arrow to the left of the **Path List**.



The **Desktop** and **Computer** are also included in the list. Select any item in the list to show its contents in the files list and navigate to the desired folder. Select **Open File Explorer** to open Windows Explorer.

Sort menu: Click to sort the list by **Name**, **Type**, **Size**, or **Date**. Click the same sort option a second time to reverse the sort order.

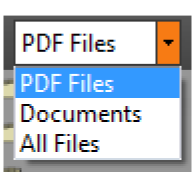
Name: Sorts alphabetically by file name.

Type: Sorts alphabetically by file type.

Size: Sorts files by file size. When sorting by size, the file size will appear next to the file name. Folder sizes are not calculated.

Date: Sorts by date. When sorting by date, the file date will appear next to the file name.

Select File Filter menu: Filters the files that are shown in the file list. **PDF Files**, **Documents**, or **All Files** can be selected. PDF Files is the default.



Backward: Moves back one step in the navigation history.

Forward: Moves forward a step. Only available once Backward has been used.

Up One Level: Navigates to the parent of the current folder.

Create New Folder: Creates a new folder in the current location.

Pin Folder: Pins the current folder. Only shown for folders that are not currently pinned.

Unpin Folder: Unpins a folder that is currently pinned. Only shows for folders that are currently pinned.

File and Folder List: Appears below the toolbar. The folders and files of the currently selected folder are shown in the list. Double-click on a folder or file to open it.

The Explorer File List

The list that comprises the rest of the File Access tab in Explorer mode shows the files in the currently selected folder.

Click the white double-arrow to the right of each file name to show a list of drives and folders that can be accessed, similar to the double-arrow button on the toolbar.

Context Menu

Right-click on a file or folder to reveal the following options.

Open File: Opens the file in Revu.

Note: This option does not appear when right-clicking a folder.

Open Folder: Opens the folder in the File/Open dialog box.

Rename: Renames the file.

Delete: Deletes the file from the disk.

Note: This permanently deletes the file from the hard disk.

Properties: Opens the Windows File Properties dialog box.

MultiView™ and MultiView™ Extended

Revu's exclusive MultiView feature enables breaking the workspace up into multiple splits that can be synchronized. Additionally, MultiView Extended allows a document tab to be separated from the main workspace into a stand-alone, detached workspace.

Splitting the Workspace with MultiView

MultiView lets you break the workspace up into independent splits (up to sixteen of them). Splits can be synchronized to pan and zoom in unison, and they can show different files or different areas of the same file. Controls for splitting the screen are found on the Navigation bar at the bottom of the workspace.

- To split the window horizontally, click or press CTRL+2.
- To split the workspace vertically, click or press CTRL+H.
- To remove the current split, click or press CTRL+SHIFT+2.

Click **Sync** on the Status bar to synchronize the pan and zoom settings. This is useful when you need to compare multiple versions of the same document. Panning or zooming the document in one window will automatically adjust the view in the second window.

Moving a Document From One Split to Another

To move a document from one split to another, click and drag its document tab to the desired split. A small white arrow will appear on the destination tab as you drag.

Working on Multiple Monitors with MultiView Extended

MultiView Extended lets you separate a document tab from the main workspace into a stand-alone, detached workspace. This is especially useful for working with multiple monitors.

- To detach a tab, click and drag the tab away from the documents tab bar or right-click on a tab and select **Detach**.
- To detach a document tab while leaving that document open in the main workspace, hold down CTRL while dragging the document tab off the main window.

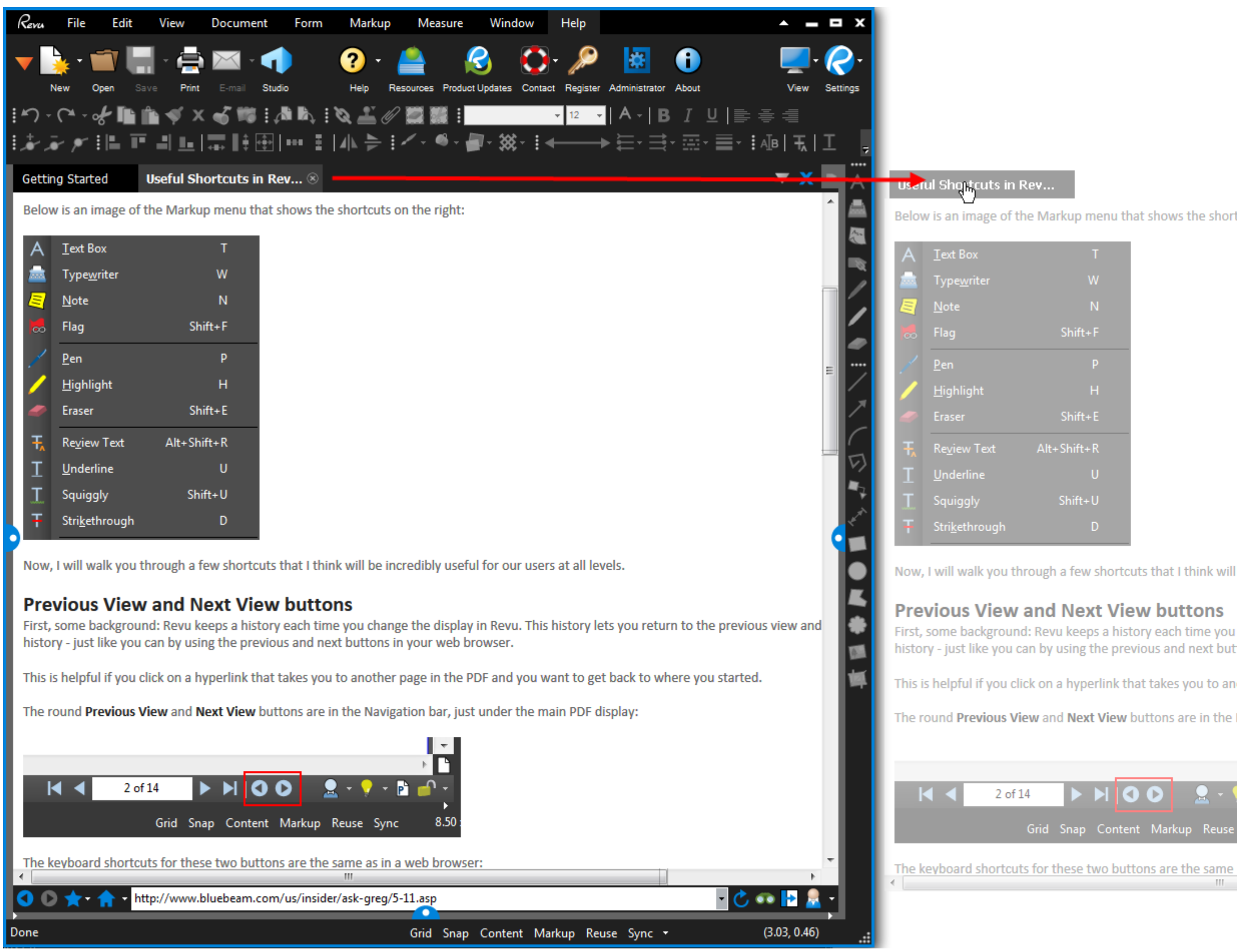
- To return the detached tab to the main workspace, click and drag the tab back to the document tab bar.

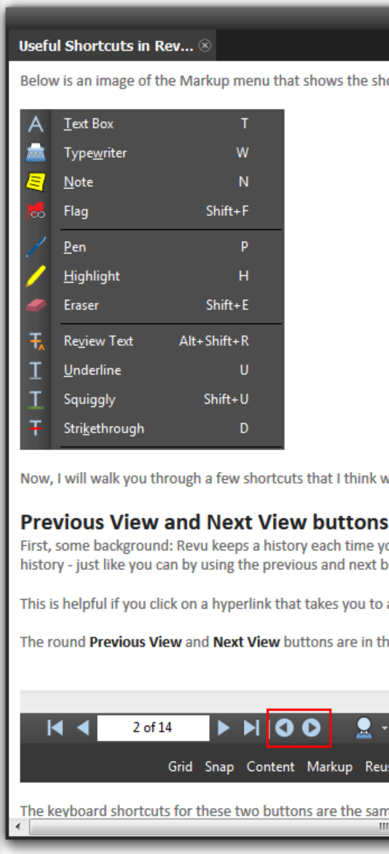
Tabs cannot be moved to another instance of Revu.

Features of Detached Workspaces

- Can contain multiple document tabs, similar to the main Revu workspace.
- Can be split.
- Can Sync with the main Revu workspace.
- Always appears on top of the main Revu window.

The example shows a document tab being undocked by dragging the tab.




File Edit View Document Form Markup Measure Window Help
New Open Save Print E-mail Studio Help Resources Product Updates Contact Register Administrator About View Settings
Getting Started
WELCOME TO Revu
Revu was created for those who do. Combining an intuitive PDF editor, viewer, markup and collaboration technology with reliable file creation. Revu goes beyond PDF and takes paperless workflows to a whole new level. The flexible interface is artfully designed, providing the necessary tools for accessing and managing the documents that you need, when you need them. Simply put, there are no limits to what you can achieve.
It's all in the design.
The Revu interface is intuitive and easy on the eyes. Click on the menu bar at the top of the interface to display groups of menu buttons, and pin commonly used tools to create custom toolbars. At the left, right and bottom are panels that can be opened and closed to expose more tabs such as File Access™, Bookmarks, Thumbnails, Tool Chest™, Links™, Properties, Search, Studio™, Markups list, Measurements and more. Use MultiView™ technology to split your screen up to sixteen times and sync tabs to pan and zoom in unison. Or, drag a file or feature tab to another monitor to maximize your viewing space.
VECTOR
Videos and Tutorials
To help you fully utilize all of the features within Revu, we have a number of online resources available for you on Bluebeam University. Watch our training videos for a fast and efficient way to get started and become a master at Revu. Read our PDF tutorials to learn more about Revu basics, setup, general and advanced markups, document editing, collaboration and more. Or, sign up for one of our custom, paid training courses. It's all just a click away.
http://www.bluebeam.com/us/insider/ask-greg/5-11.asp
Done
Grid Snap Content Markup Reuse Sync
(3.03, 0.46)

Useful Shortcuts in Rev...
Below is an image of the Markup menu that shows the sho
Text Box T
Typewriter W
Note N
Flag Shift+F
Pen P
Highlight H
Eraser Shift+E
Review Text Alt+Shift+R
Underline U
Squiggly Shift+U
Strikethrough D
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Previous View and Next View buttons
First, some background: Revu keeps a history each time yo
history - just like you can by using the previous and next b
This is helpful if you click on a hyperlink that takes you to a
The round Previous View and Next View buttons are in th
2 of 14
Grid Snap Content Markup Reu
The keyboard shortcuts for these two buttons are the sam

Document Editing and Management

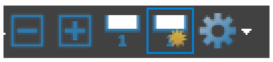
Thumbnails Tab

The Thumbnails tab shows small previews of PDF pages for quick navigation within a multi-page document.

Go to **View** > **Tabs** > **Thumbnails** or press ALT+T to show the **Thumbnails** tab.

- Thumbnails Tab Toolbar
  - Navigating and Selecting Thumbnails
- Creating and Editing Page Labels
- Reordering Pages

Thumbnails Tab Toolbar



The **Thumbnails** tab toolbar provides easy access to the following actions:

Reduce Thumbnail Size: Reduces the size of the thumbnail images.

Increase Thumbnail Size: Enlarges the thumbnail images.

Show/Hide Page Label: Toggles page labels shown beneath individual thumbnails on or off.

Create Page Label: The **AutoMark**TM technology allows automatic Page Label modification based on Bookmarks or one or more specified Page Regions on the PDF that are consistent on each page.

Options menu: Provides quick access to several PDF page manipulation tools, including inserting, reordering, and deleting pages. Right-clicking on a thumbnail will provide the same options.

Navigating and Selecting Thumbnails

Navigate through the thumbnails using either the keyboard ARROW keys or the mouse.

When working with the thumbnails, more than one page of a document can be selected in order to manipulate multiple pages at the same time through the **Options** menu (discussed above). Hold down SHIFT or CTRL to select multiple pages.

Creating and Editing Page Labels

You can create and edit page labels for any or all of the pages of your PDF from the Thumbnails tab.

Reordering Pages

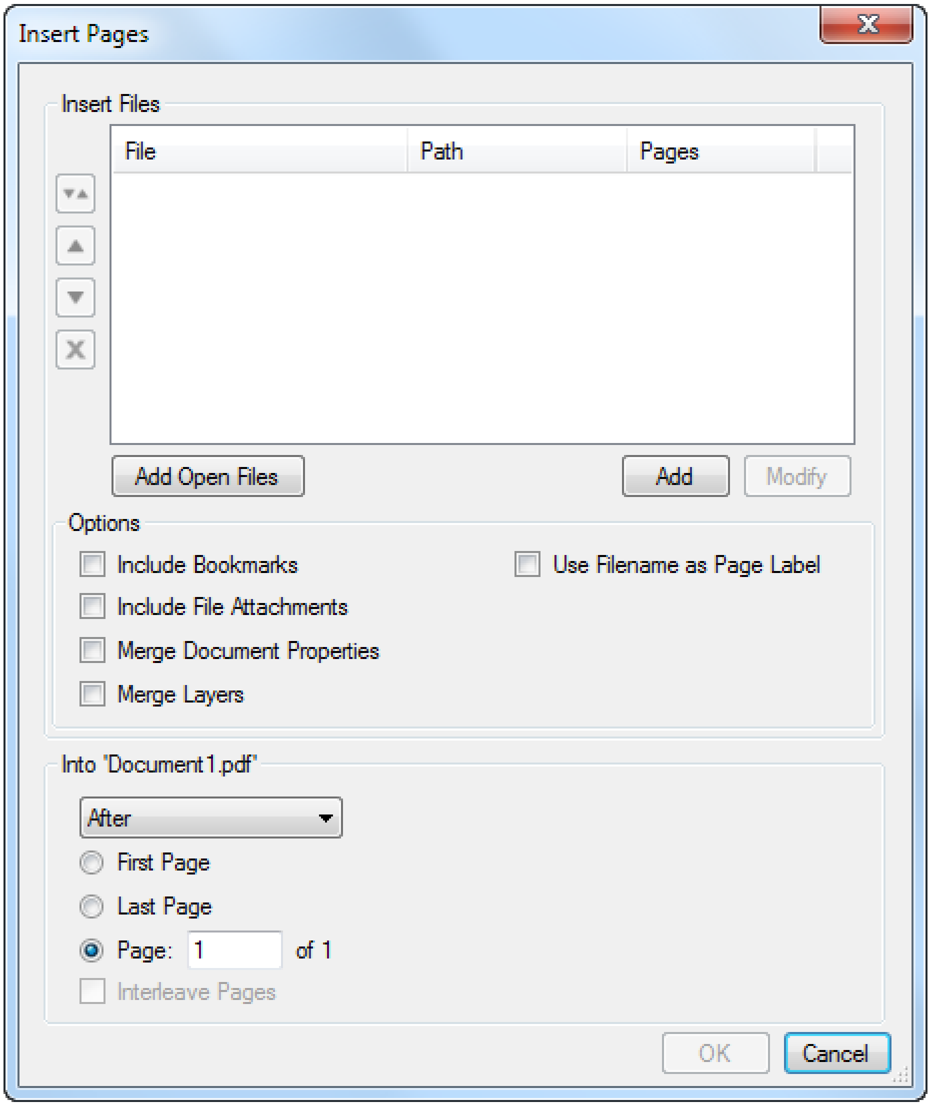
You can change the order of pages in a multi-page PDF from the Thumbnails tab by dragging the desired page into the desired location. See Reordering Pages for more details.

Inserting Pages into a PDF

- Inserting Pages from Another PDF
- Inserting Blank Pages

Inserting Pages from Another PDF

1. Open the PDF into which you wish to insert pages. This process works on the currently active PDF.
2. Go to **Document** > **Pages** > **Insert Pages** or press CTRL+SHIFT+I. The **Select Files to Insert** dialog box appears.
   - If there is more than one PDF open in Revu at the time, the **Insert Pages** dialog box appears instead. Skip to step 4 below.
3. Navigate to and select the file that is the source of the pages that will be inserted into the current PDF, then click **Open**. The **Insert Pages** dialog box appears.



4. To add files that will be the source of pages that will be inserted into the current PDF and are not currently open in Revu, click **Add**. The **Select Files to Insert** dialog box appears. Navigate to and select the file that is the source of the pages that will be inserted into the current PDF, then click **Open**.
5. To add files that will be the source of pages that will be inserted into the current PDF and are currently open in Revu, click **Add Open**. All PDFs currently open in Revu will be added.
6. Pages will be inserted from PDFs in the order in which they are sorted. To change the sort order:
   - Click  and select the desired sort option to sort the files automatically.
   - Select a file you wish to move and click either  to move it up in the list or 

to move it down in the list to reorder the files in the list manually.

- Select a file and click  to remove it from the list.

7. By default, all pages of a given file will be inserted. To select specific pages in a source PDF to be inserted:
    a. Select the PDF and click **Modify**. The **Select Pages** dialog box appears.
    b. Select **Custom** from the **Pages** dropdown menu and enter the pages to be inserted.
        - Use a dash between page numbers to define those two pages and all pages in between.
        - Use a comma to define pages that are separated.

        For example, entering **1-3, 5, 9** will insert pages 1, 2, 3, 5, and 9.
    c. Click **OK**.
8. Select the desired **Options**:
    - **Include Bookmarks**: Add any bookmarks from the selected PDF files.
    - **Include File Attachments**: Add any file attachments from the selected PDF files.
    - **Merge Document Properties**: Combine the document properties of the existing and selected PDF files.
    - **Merge Layers**: All layer information in the PDFs will be kept when this options is checked. If unchecked, the layers will be removed, but the content and markups in the layers will remain in the combined PDF.
    - **Use Filename as Page Label**: By default, the page labels of the inserted pages are copied from the source PDFs. Select this to use the file names instead.
9. Determine where the inserted pages will be placed:
    a. Select **Before** or **After** from the dropdown menu below the name of the PDF into which the pages are being inserted.
    b. Select **First Page**, **Last Page**, or specify a **Page**.
        - The combination of these two choices determines where the pages are inserted. So, selecting **After** and **Last Page** will insert the pages after the last page of the current PDF.
10. Select **Interweave Pages**, if desired. This will cause the inserted pages to be weaved alternately into the existing pages, starting from the position determined in the previous step. This is useful when rejoining odd and even pages that were output separately, for

example.

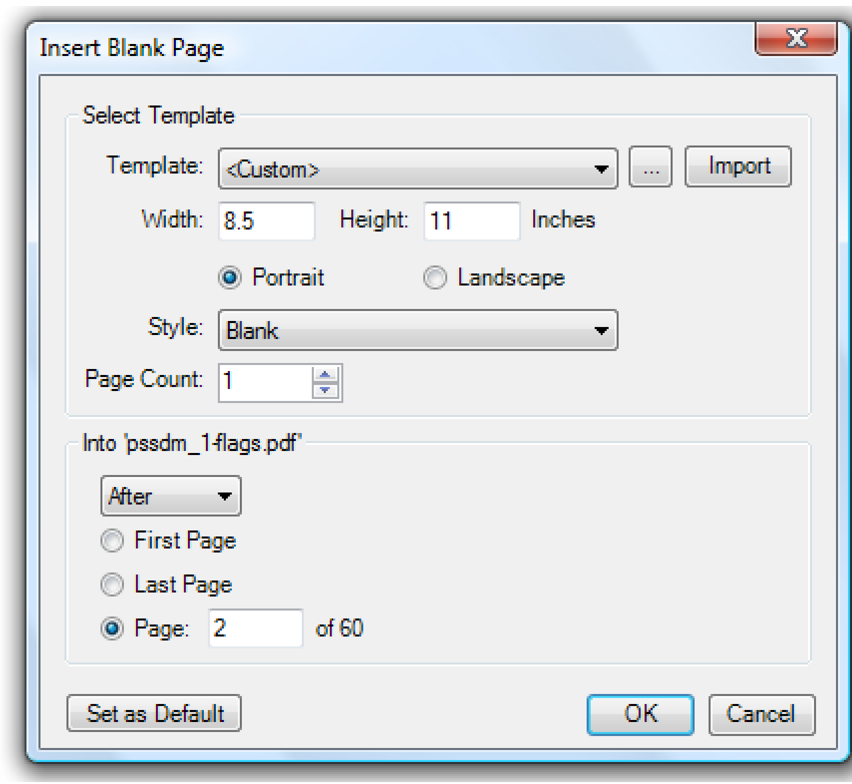
11. Click **OK**.

Tip: You can insert pages directly from Windows Explorer. Simply drag one or more PDFs into the Thumbnails tab and the **Insert Pages** dialog box will appear with those files already added.

Inserting Blank Pages

To insert a blank page or a new page from a saved template, use the Insert Blank Page command.

1. Open the PDF into which you wish to insert pages.
2. Go to **Document** > **Pages** > **Insert Blank Page** or press CTRL+SHIFT+N. The **Insert Blank Page** dialog box appears.



3. To select a template for the new page(s), select it from the **Template** dropdown menu.
4. To set a custom size, enter the **Width** and **Height** values.
5. To define the orientation, select either **Portrait** or **Landscape**.
6. To choose a grid style, select it from the **Style** dropdown menu.
7. Enter the number of pages to insert in the **Page Count** field.

8. Determine where the inserted pages will be placed:
    a. Select **Before** or **After** from the dropdown menu below the name of the PDF into which the pages are being inserted.
    b. Select **First Page**, **Last Page**, or specify a **Page**.
        - The combination of these two choices determines where the pages are inserted. So, selecting **After** and **Last Page** will insert the pages after the last page of the current PDF.
9. To set this configuration as the default for future use, click **Set as Default**.
10. Click **OK**.

Deleting Pages

Selected pages can be deleted from a PDF. PDF/A documents or documents that have been certified or digitally signed cannot have pages deleted.

Deleting Pages From a PDF

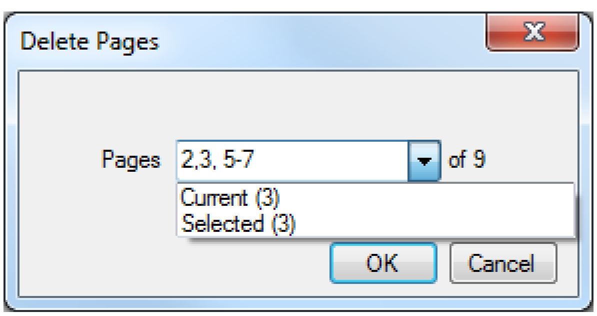
There are a few ways to delete pages from a PDF file:

- Go to **Document** > **Pages** > **Delete Pages**.
- From the **Thumbnails** tab, click one or more thumbnails to select a page. CTRL-click or SHIFT-click to select multiple pages, then right-click on a selected page and select **Delete Pages** or press the DELETE key.
- Press CTRL+SHIFT+D.

Each of these methods opens the **Delete Pages** dialog box. Choose which pages to delete from the Pages menu. Options are:

- **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
  - Use a dash between page numbers to define those two pages and all pages in between.
  - Use a comma to define pages that are separated.

  For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.



Reordering Pages

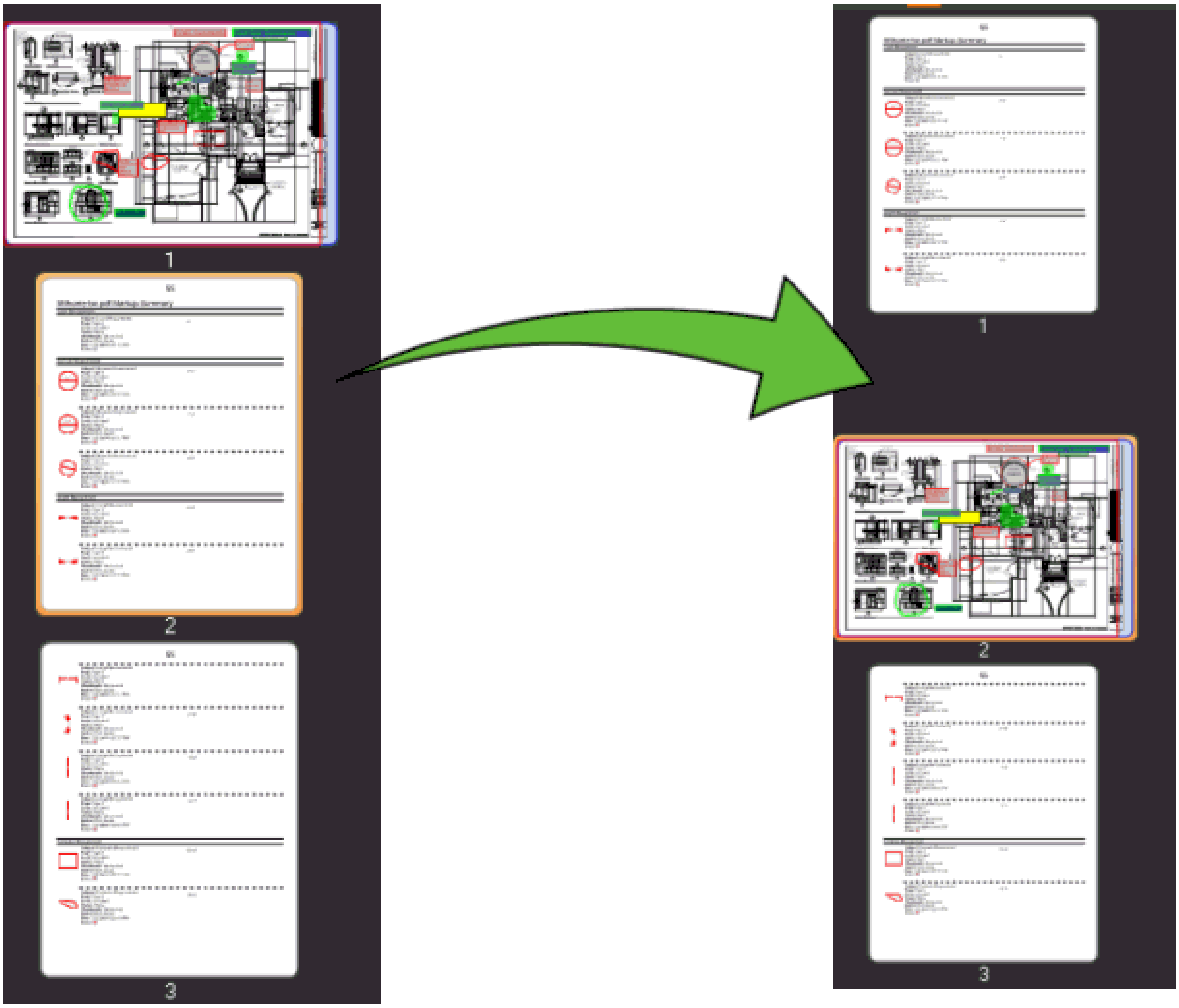
Reordering pages of a multi-page PDF in Revu is mostly a matter of simply dragging and dropping the desired page's thumbnail into the desired location. You can reorder one page at a time or several pages at the same time.

If you want the PDFs bookmarks to automatically reorder to match, be sure to enable **Auto-Reorder Bookmarks** in the Document Preferences.

- Reordering One Page at a Time
- Reordering Multiple Pages at the Same Time

Reordering One Page at a Time

1. Select the **Thumbnails** tab. If it is currently hidden, go to **View** > **Tabs** > **Thumbnails** or press ALT+T.
2. Click the thumbnail of the page you wish to move and drag it into the desired position. As you drag, a blue line appears to indicate where the page will be inserted. When you release the page, it will be inserted in the indicated position and the pages of the PDF will be automatically renumbered.



Reorder Multiple Pages at the Same Time

1. Select the **Thumbnails** tab. If it is currently hidden, go to **View** > **Tabs** > **Thumbnails** or press ALT+T.
2. SHIFT-click (for pages in a range) or CTRL-click (for pages not in a range) and drag the selected pages into the desired position. As you drag, a blue line appears to indicate where the pages will be inserted. When you release the pages, they will be inserted in the indicated position and the pages of the PDF will be automatically renumbered. The pages that you have moved will retain their relative position to one another.
   - For example, if you moved pages 2, 5, 9, and 18 of a 20-page PDF to the end of the PDF, they would become pages 17, 18, 19, and 20 respectively.

Rotating Pages

The Rotate Pages feature allows you to rotate the page contents of a PDF in 90° intervals. This feature rotates the page contents, which becomes permanent when the PDF is saved.

PDF/A documents or documents that have been certified or digitally signed cannot have pages rotated. The Rotate Pages feature for single PDFs is discussed here.

Revu also provides de-skewing functionality for pages that may have come in misaligned (for example, from a scanner).

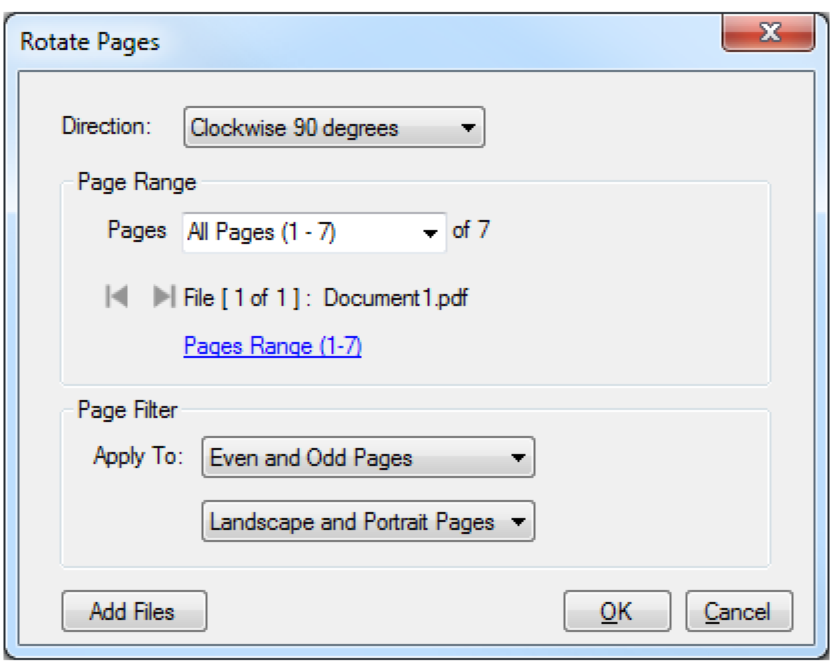
Rotating Pages

There are two basic ways to rotate pages. These methods will rotate either the current page or all pages in the PDF, depending on whether **Rotate all pages by default** is enabled in Document Preferences:

- On the Rotation toolbar, click **Rotate Counterclockwise** or **Rotate Clockwise**.
- On the keyboard, press SHIFT+ALT+MINUS to rotate counterclockwise or SHIFT+ALT+PLUS to rotate clockwise.

There is a third way to rotate pages that lets you specify which pages are rotated:

1. Select the desired pages' thumbnails on the Thumbnails tab.
2. Go to **Document** > **Pages** > **Rotate Pages** or press CTRL+SHIFT+R. The **Rotate Pages** dialog box appears.



- To rotate pages in this PDF and other PDFs at the same time, click **Add Files**.

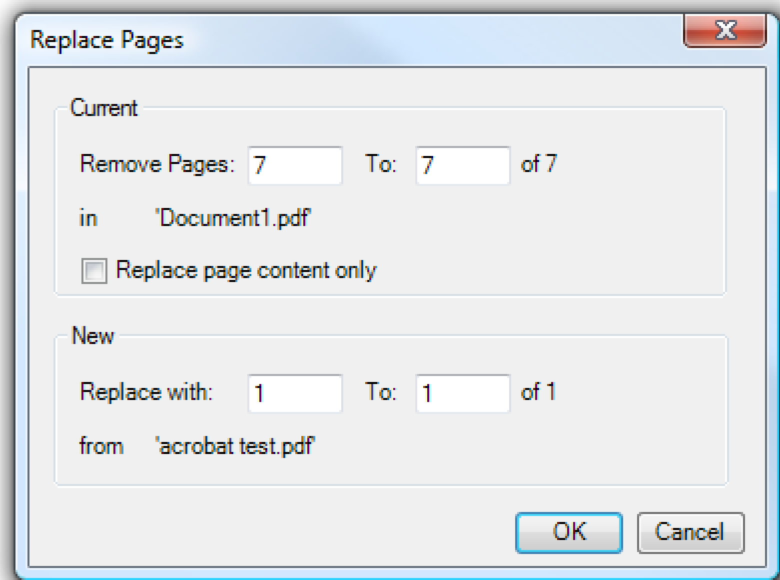
3. Select the desired rotation direction from the **Direction** menu.
4. By default, the **Page Range** will be equal to the thumbnails selected in Step 1. The following options are available:
    - **All Pages**: Sets the range to all pages.
    - **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
    - **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
    - **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
        - Use a dash between page numbers to define those two pages and all pages in between.
        - Use a comma to define pages that are separated.

      For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.
5. From the **Apply To** menus, select among **Even Pages Only**, **Odd Pages Only** or **Odd and Even Pages** and among **Landscape Pages**, **Portrait Pages** or **Landscape and Portrait Pages.** These selections work in conjunction to form the filter, so any pages to be processed must meet both criteria selected.
6. Click **OK**.

Replace Pages

Replacing Pages

1. Open the PDF in which you wish to replace pages. This process works on the currently active PDF.
2. Go to **Document** > **Pages** > **Replace Pages** or press CTRL+SHIFT+Y. The **Replace Pages: Select New File** dialog box appears.
3. Navigate to and select the file that is the source of the pages that will replace pages in the current PDF, then click **Open**. The **Replace Pages** dialog box appears.



4. Enter the pages of the current PDF that should be removed in the **Remove Pages** fields.
5. Select **Replace page content only** to replace only the content layer of these pages. Other information (for example, unflattened markups and hyperlinks) will be preserved.
6. Enter the pages of the new PDF that should replace the paged being removed in the **Replace with** fields.
7. Click **OK**.

Note: Replacing Pages will break any previously set up Bookmarks unless **Replace page content only** is checked.

Creating a PDF from Multiple PDFs

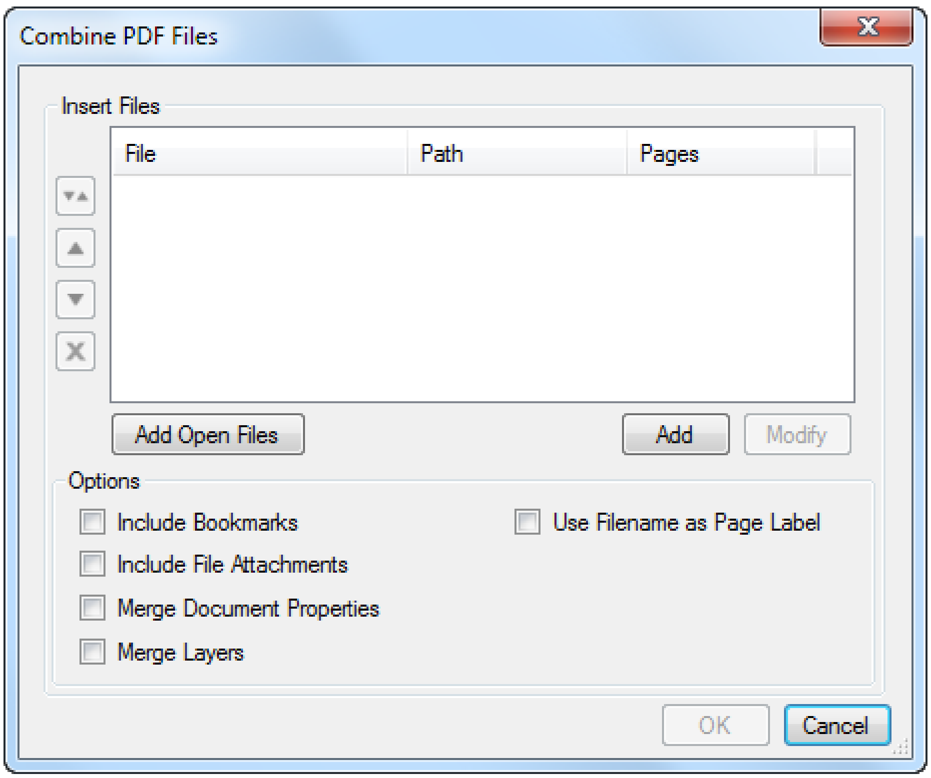
Multiple PDFs can be combined into a single PDF from within Revu or from the context (right-click) menu in Windows Explorer.

- Combining PDFs in Revu
- Windows Explorer Context (right-click) Menu

Combining PDFs in Revu

To combine multiple PDFs into a single PDF from within Revu:

1. Go to **File** > **Combine**. The **Combine PDF Files** dialog box appears.



2. Add files to the list:
   - To add all PDFs that are currently open in Revu, click **Add Open Files**.
   - To select files from a local or network drive, click **Add**.
3. To specify the page or pages of a PDF that should be included in the combined PDF, select it and click **Modify**, then select the desired page range option from the **Pages** menu and click **OK**. The page range options are:
   - **All Pages**: Sets the range to all pages.

- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
    - Use a dash between page numbers to define those two pages and all pages in between.
    - Use a comma to define pages that are separated.

  For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

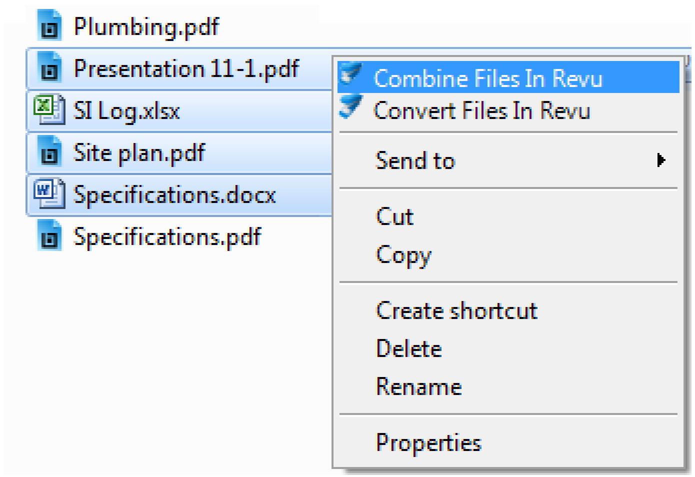
4. PDFs will be combined in the order in which they are sorted. To change the sort order:
    - Click and select the desired sort option to sort the files automatically.
    - Select a file you wish to move and click either to move it up in the list or to move it down in the list to reorder the files in the list manually.
    - Select a file and click to remove it from the list.
5. Select any of the desired **Options**:
    - **Include Bookmarks**: Add any bookmarks from the selected PDF files.
    - **Include File Attachments**: Add any file attachments from the selected PDF files.
    - **Merge Document Properties**: Combine the document properties of the existing and selected PDF files.
    - **Merge Layers**: All layer information in the PDFs will be kept when this options is checked. If unchecked, the layers will be removed, but the content and markups in the layers will remain in the combined PDF.
    - **Use Filename as Page Label**: By default, each page label of the combined PDF is named after the source PDF's page label. Select this to use the file names instead.
6. Click **OK**.

Windows Explorer Context (right-click) Menu

You can combine files (create a single, multi-page PDF out of several source files) or convert them (create multiple, individual PDFs from each source file) directly from Windows Explorer using Stapler.

1. Open a Windows Explorer window and navigate to a folder containing files you wish to combine or convert.
2. Select the desired files in the Explorer window. Hold down CTRL or SHIFT to select multiple files.

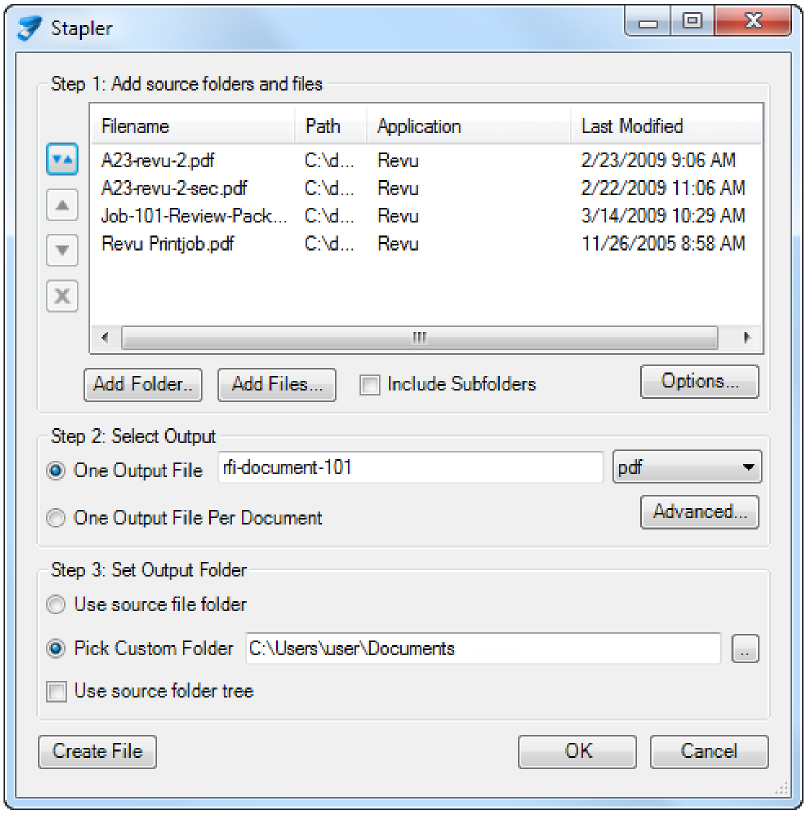
3. Right-click any of the selected files and select one of the following:
    - **Combine Files in Revu** will create a single multi-page PDF from the selected files.
    - **Convert Files in Revu** will make individual PDFs from each of the selected files.



What happens next depends on which you selected:

Combine Files in Revu

1. When selected, the Stapler wizard opens with the selected files already populated in the source file window.

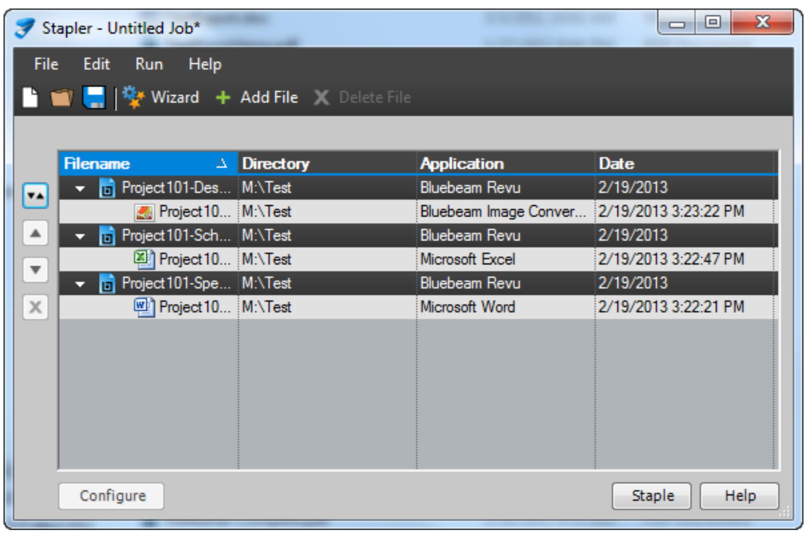


2. To add any additional source files, click one of the following buttons:
   - **Add Folder**: Adds all files found within a selected folder. When clicked, the **Add Files from Folder** dialog box appears. Navigate to and select the desired folder, then click **Select Folder**.
     - To include the files found in this folder's subfolders, select **Include Subfolders** first.
   - **Add Files**: Adds selected files. When clicked, the Open dialog box appears. Navigate to and select the desired files (hold down CTRL or SHIFT to select multiple files), then click **Open**.
3. PDFs will be combined in the order in which they are sorted. To change the sort order:
   - Click and select the desired sort option to sort the files automatically.
   - Select a file you wish to move and click either to move it up in the list or to move it down in the list to reorder the files in the list manually.
   - Select a file and click to remove it from the list.

4. To create a single PDF out of the source files, select **One Output File** and enter a name for the PDF in the corresponding field. Otherwise, select **One Output File Per Document** to create a separate PDF for each of the source files.
5. To save the PDF or PDFs in the same folder as the source files, select **Use source file folder**. Otherwise, select **Pick Custom Folder** and click ... to navigate to and select the desired folder.
6. Click **Create File**.
    - Clicking **OK** will open the job in the Stapler configuration window, where you can view the jobs about to be run or queue additional jobs. Further information about using the Stapler Configuration window is accessible from the Help > Help command in the Stapler Configuration window.

Convert Files in Revu

1. When selected, a new Stapler job opens with the selected files already populated as sources.



2. To include an additional source file:
    a. Click **Add File**. The **Select Files for Conversion** dialog box appears.
    b. Navigate to and select the desired file. To convert individual sources into distinct PDFs, select only one file (see the note below for information about selecting multiple files).
    c. Click **Open**. The new source file is added to the job.
        - Selecting multiple files is allowed, but doing so will open the Stapler wizard in order to combine the new files into a single PDF. If that is desirable, hold down CTRL or SHIFT while

selecting the new files. When you click **Open**, the Stapler wizard appears. Click **OK** and the new files are added to the Stapler job to be combined into a single PDF.

3. To remove a source file, select it and click ❌ **Delete File**.
4. Click **Staple**. The files will be converted to PDFs and opened in Revu.

Cut Content

Cut Content removes graphics or text data from the content stream of a PDF and at the same time moves that information onto the clipboard so it can be pasted elsewhere. It is functionally equivalent to simultaneously taking a Snapshot and performing Erase Content. It does not cut content outside the content stream (for example, it will not cut markups unless they have been flattened). Be aware that performing this action on a page containing flattened markups will prevent all markups on the page from being unflattened.

Using Cut Content to Move Content

1. Go to **Edit** > **Content** > **Cut Content.**
2. Click and drag a rectangle or multi-click a polygonal shape around the content you wish to cut.
3. Go to **Edit** > **Clipboard** > **Paste** or **Paste in Place**, as desired (see Paste in Place), to paste the cut content as a Snapshot.
   - Alternatively, press CTRL+V to Paste or CTRL+SHIFT+V to Paste in Place.
4. Move or resize the Snapshot as desired.

Erase Content

Erase Content allows the removal of text, vectors, and images from documents. Affected content is permanently removed from the PDF content stream, much like a Redaction. It does not erase content outside the content stream (for example, it will not erase markups unless they have been flattened). Be aware that doing this on a page containing flattened markups will prevent all markups on the page from being unflattened.

Using Erase Content on a digital signature will invalidate it.

Erasing Content From a PDF

1. Go to **Edit** > **Content** > **Erase Content.**
2. Click and drag a rectangle or multi-click a polygonal shape around the content you wish to erase.

Erase content does not allow pasting the erased material. See Cut Content to cut and then paste.

Once the file is saved, the erased content is permanently removed.

Note: If Redaction or Erase Content is used on a Digital Signature, the signature will be invalidated.

Editing and Reviewing Text

Bluebeam Revu's text editing and reviewing features are great for last-minute changes or for proofreading PDF documents.

- Editing Text
- Reviewing Text
- Other Text Markups

Editing Text

Use **Edit Text** to add, replace, or delete existing text in a PDF. Text added using this tool will not wrap; Edit Text is recommended for minor changes to text only.Be aware that performing this action on a page containing flattened markups will prevent all markups on the page from being unflattened.

1. Go to **Edit** > **Content** > **Edit Text** or click **Edit Text** on the Advanced Text toolbar.
2. Images and other non-editable items will be grayed out. Press the INSERT key to toggle between inserting (default) and overwriting text.
3. To add text, click the desired location and enter text with the keyboard. Revu will automatically recognize and match the font, style and size, or you can use the **Properties** tab to adjust these settings.
4. To delete text, click and drag your cursor to select the text, then press the DELETE key.
5. To replace text, click and drag your cursor to select the text, then simply type to replace it.
6. Press the ESC key or select any other markup to exit Edit Text mode.

For all Text Editing functions, you can use the keyboard arrow keys to navigate through text and double-click to select an entire word.

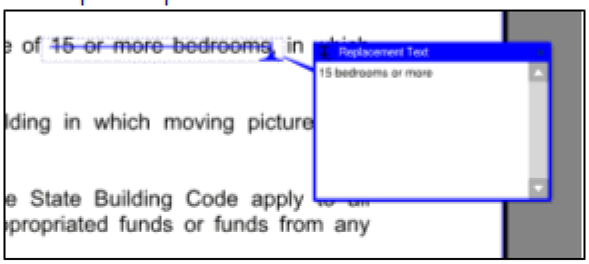
Note: If you attempt to edit text in a PDF containing a font that is not on your computer, you will receive a message prompting you to change the font. Select the text with the cursor or press CTRL+A and change it to any available font using the Properties tab.

Reviewing Text

Revu's Review Text tool lets you to mark text for edits without changing the text in the PDF. You can either mark text for replacement or mark a position where text should be inserted.

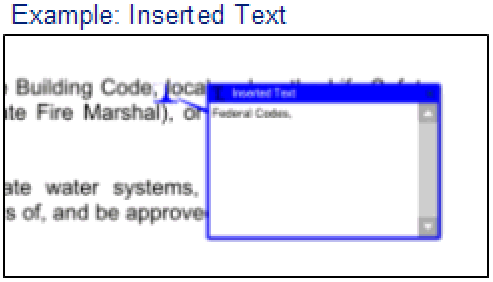
1. Go to **Document** > **Review** > **Review Text** or click **Review Text** on the Advanced Text toolbar.
2. To mark text for replacement:
    a. Click and drag to select the text you wish to mark for replacement. A pop-up note appears when you release the mouse button.
    b. Enter the desired replacement text. Revu will track the replacement text in the pop-up note, mark the original text with a strikethrough, and add an insertion point.

    Example: Replacement Text

3. To mark an insertion point for text:
    a. Click to place the cursor at the point where the insertion should take place. A pop-up note appears.
    b. Enter the text to be inserted. Revu will track this text in a pop-up note and will place an insertion point in the text.

    Example: Inserted Text

4. Press ESC to exit Review Text mode.

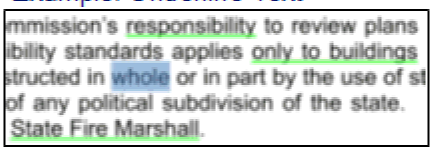
Other Text Markups

Revu also includes Advanced Text markups so you can underline text, add a squiggly line to denote a misspelling, or a strikethrough to mark text for deletion.

Underlining Text

1. Go to **Document** > **Review** > **Underline**.
    - Alternatively, click **Underline** on the Advanced Text toolbar or press the U key.
2. Click and drag to select text to be underlined.
3. Release the mouse button. The selected text will be underlined.

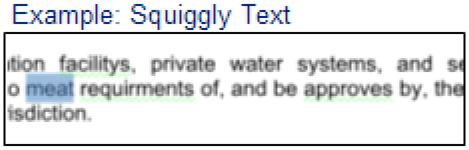
Example: Underline Text



Underlining with a Squiggly Line

1. Go to **Document** > **Review** > **Squiggly**.
    - Alternatively, click **Squiggly** on the Advanced Text toolbar or press SHIFT+U.
2. Click and drag to select text to be underlined.
3. Release the mouse button. The selected text will be underlined with a squiggly line.

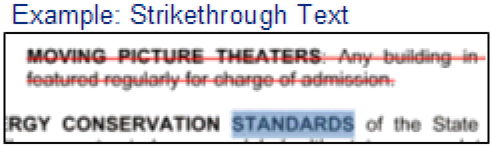
Example: Squiggly Text



Striking Through Text

1. Go to **Document** > **Review** > **Strikethrough**.
    - Alternatively, click **Strikethrough** on the Advanced Text toolbar or press the D key.
2. Click and drag to select text to be struck through.
3. Release the mouse button. The selected text will have a line struck through it.

Example: Strikethrough Text



Search Tab

The Search tab allows you to search for text in the current PDF, all open PDFs, PDFs in a folder, or in the files in the Recents list. You can perform a Text search or a Visual search. You can also Search and Replace.

Go to **View** > **Tabs** > **Search** or press either ALT+1 or CTRL+F to show the **Search** tab.

- Search Toolbar
- Text Search
- VisualSearch

Search Toolbar

The Search toolbar contains several tools for working with search results. None of these tools are available until after a Text Search or Visual Search has been run.

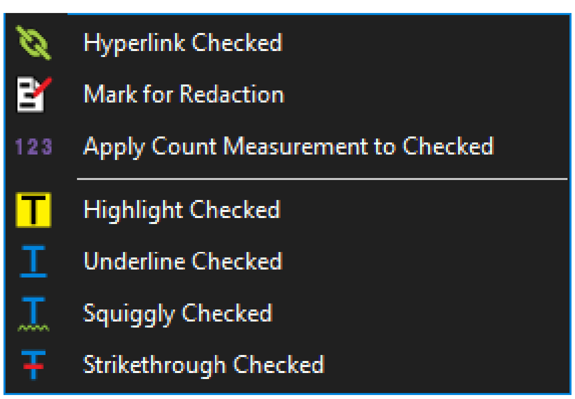
Expand All: Shows all results.

Collapse All: Shows only the filenames to make navigation easier.

Check All: Selects all result items. This makes it easy to apply bulk changes to search result terms across multiple documents.

Uncheck All: Deselects all search results.

Actions menu: Contains commands that can be performed on all checked items at once. These commands can also be performed on individual search results by right-clicking the result and choosing the command from the context menu.



Hyperlink Checked: Creates a hyperlink for each result selected.

Mark for Redaction: Redacts each result selected.

Apply Count Measurement to Checked: Adds a Count Measurement markup to each result selected.

Highlight Checked: Applies a Highlight markup to each result selected.

Underline Checked: Applies an Underline markup to each result selected.

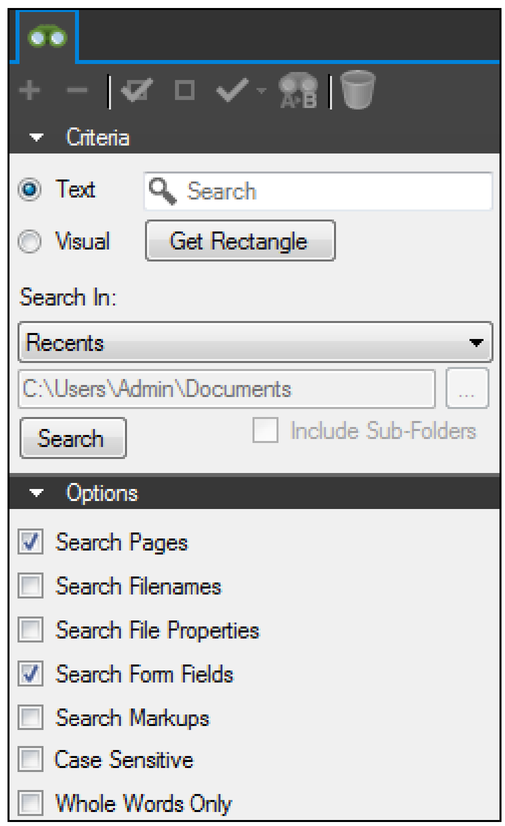
Squiggly Checked: Applies a Squggly markup to each result selected.

Strikethrough Checked: Applies a Strikethrough markup to each result selected.

Replace Checked: Allows for replacing the text found in a search with other text. See Search and Replace. For use with Text Searches.

Clear Search Results: Clears the current search results list.

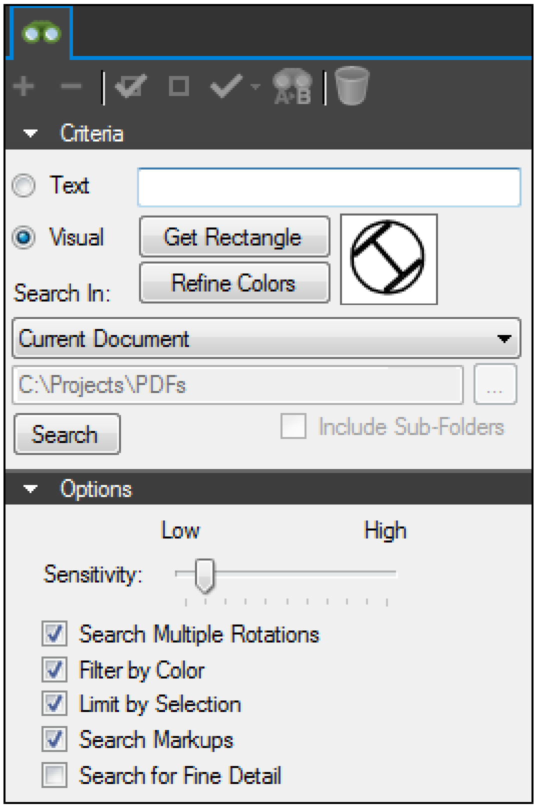
Text Search



Text must be present in the PDF file for text search to find it. Scanned PDF files are images and do not contain any text, so they are not searchable. See Searching PDFs for more information on running a text search on a PDF.

- **Search Pages**: Searches for text in the content of the PDF.
- **Search Filenames**: Searches the file names in the Recents list when **Search In** is set to **Recents**.
- **Search File Properties**: Searches for text in the Properties metadata fields.
- **Search Form Fields**: Searches for text in the data entered in the form fields.
- **Search Markups**: Searches for text in markups.
- **Case Sensitive**: Searches for text with the exact case typed in the **Search Terms** field.
- **Whole Words Only**: Searches only for instances where the search term exists as a complete word. If the search term is partially contained in another word and the **Whole Words Only** box is checked, it will not be included in the search results.

VisualSearch™



VisualSearch™ allows for the searching of graphical symbols in PDFs. To set the search criteria, define a rectangle around the symbol or graphic that you want to search for in the document. See Searching PDFs for more information on running a visual search on a PDF.

Searching PDFs

Revu supports two methods for searching PDFs: Text Search and Visual Search. Text searches are generally faster and, when searching for text, more reliable, but they only work on actual text; scanned PDFs, for example, are images, so even if those images contain words, Text Search will not work on them. Visual searches allow for the searching of graphical symbols in PDFs.

Text Search

Text must be present in the PDF file for text search to find it. Scanned PDF files are images and do not contain any text, so they are not searchable.

To run a text search:

1. Go to **View** > **Tabs** > **Search** or press either ALT+1 or CTRL+F to show the **Search** tab.
2. Select **Text.**
3. Enter the desired search term in the **Text** field.
4. Select the document(s) or location you would like to search from the **Search In** menu. The options are **Current Document**, **Current Page**, **All Open Documents**, **Recents**, **Folder** or **Current Studio Project**.
   - If **Folder** is selected, use the path box or browse button below to define the location of the folder. Select **Include Sub-Folders** to include the folders found within the specified folder in the search.
   - If you have a Set open, the **Current Set** option will be available. Select this to search within the open Set.
   - If you are logged into a Studio Project, the **Current Studio Project** option will be available. Select this to search all local (downloaded) files from that Project. This option restricted to file name only searches; it is currently not possible to search within document content.

5. Select the desired search options from those available under Options. The exact options available will vary according to the selection made in the **Search In** field.
   - **Search Pages**: Searches for text in the content of the PDF.
   - **Search Filenames**: Searches the file names in the Recents list when **Search In** is set to **Recents**.
   - **Search File Properties**: Searches for text in the Properties metadata fields.
   - **Search Form Fields**: Searches for text in the data entered in the form fields.
   - **Search Markups**: Searches for text in markups.
   - **Case Sensitive**: Searches for text with the exact case typed in the **Search Terms** field.
   - **Whole Words Only**: Searches only for instances where the search term exists as a complete word. If the search term is partially contained in another word and the **Whole Words Only** box is checked, it will not be included in the search results.
6. Click **Search**. Search results will appear under the **Options** section.

Next to each search result is a checkbox. Certain operations available in the Search toolbar can be performed on the checked items.

Search Results

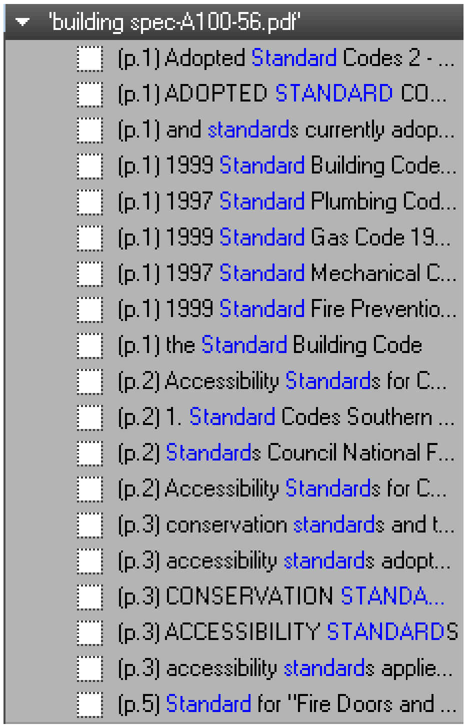
Search results are shown under the Options section. The search term is highlighted in the phrase where the term was found. The page number of the PDF is included at the beginning of each result. Click on a particular search result to jump to the location of the term in the main workspace.

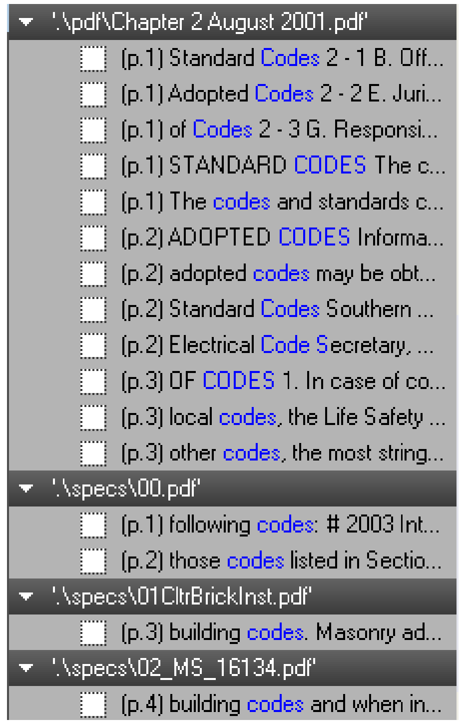
If search terms are found in multiple documents (for example if the search was conducted in **All Open Documents** or **Folder**), the search results are grouped by document. Click the triangle next to a filename to collapse or expand the results within each file.

A progress bar appears at the bottom of the Search tab as lengthy searches are performed.

Search results for a single PDF

Search results for multiple PDFs





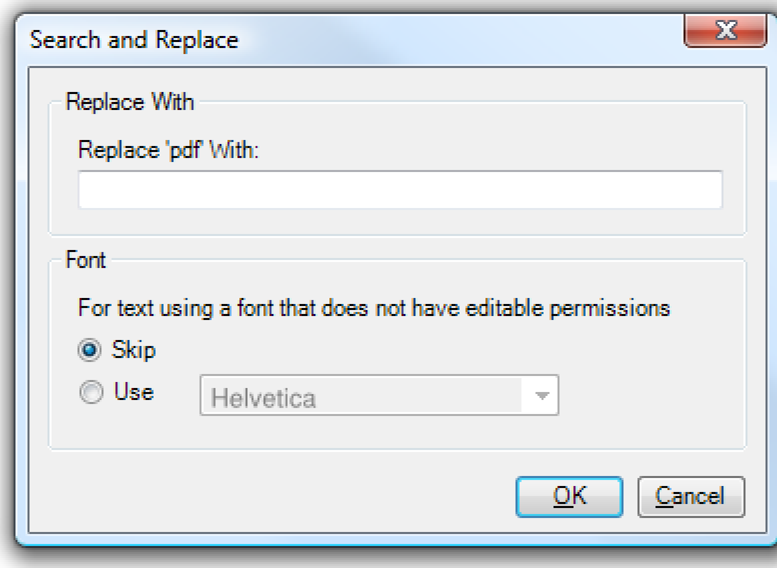
Next to each search result is a checkbox. Certain operations available in the Search toolbar can be performed on the checked items.

Search and Replace

Text found in a Text Search can be replaced. Be aware that performing this action on a page containing flattened markups will prevent all markups on the page from being unflattened.

To perform a search and replace:

1. Run a Text Search for the text you wish to replace.
2. Select the desired results from the Search Results.
3. Click **Replace Checked** on the Search tab toolbar. The Search and Replace dialog box appears.



4. Enter the replacement text in the **Replace with** field.
5. Select one of the **Font** options to determine how to handle text that uses a font that does not have editable permissions. You may either **Skip** such replacements, or **Use** a different font by selecting it from the list.

VisualSearch™

VisualSearch™ allows for the searching of graphical symbols in PDFs.

To run a visual search on a PDF:

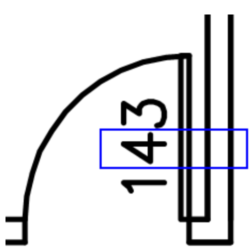
1. Go to **View** > **Tabs** > **Search** or press either ALT+1 or CTRL+F to show the **Search** tab.
2. Select **Visual**.
3. Click **Get Rectangle**, then click and drag a rectangle around the image you would like to search for.
4. Review the image that appears in the preview window to the right of the **Get Rectangle** button to be sure that it includes all of the desired image.
5. Select the document(s) or location you would like to search from the **Search In** menu. The options are **Current Document**, **Current Page**, **All Open Documents**, **Recents**, **Folder** or **Current Studio Project**.
   - If **Folder** is selected, use the path box or ... browse button below to define the location of the folder. Select **Include Sub-Folders** to include the folders found within the specified folder in the search.

- If you have a Set open, the **Current Set** option will be available. Select this to search within the open Set.
- If you are logged into a Studio Project, the **Current Studio Project** option will be available. Select this to search all local (downloaded) files from that Project. This option restricted to file name only searches; it is currently not possible to search within document content.

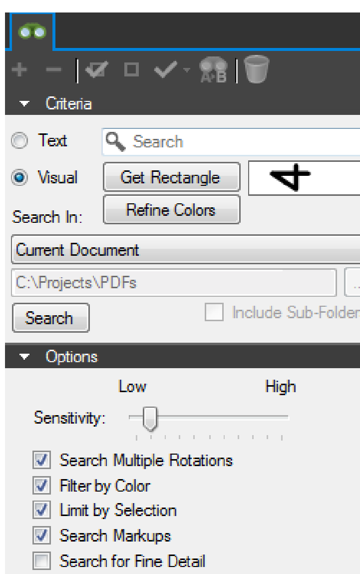
6. Select the desired search options from those available under Options. The exact options available will vary according to the selection made in the **Search In** field.
    - **Sensitivity**: Determines how closely the images need to match to be considered a valid result. Adjust the slider to set a lower or higher sensitivity. Lowering the sensitivity will allow for matches that have minor differences, like an adjacent line, but may also result in false positives.

      You might need to lower the sensitivity if you are working on a PDF created from a scan because there may be stray pixels or background noise in the PDF.
    - **Search Multiple Rotations**: Symbols will be searched at 0, 45, 90, 135, 180, 225, and 270 degree rotations.
    - **Filter by Color**: This option enables the **Refine Colors** button. The search will filter out colors that are not part of the selection (or in the selected range in the histogram).
    - **Limit by Selection**: On a vector PDF, this option will filter out vector objects that extend out of the selection rectangle.

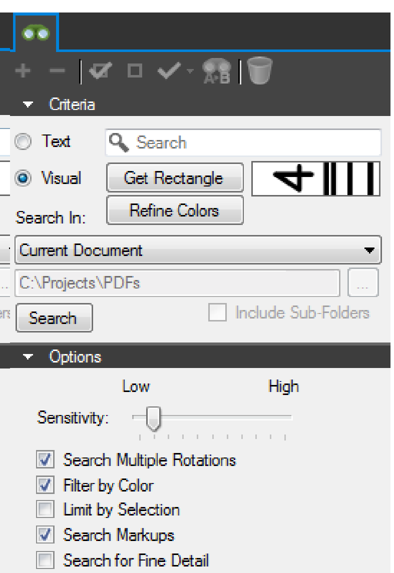
Define Rectangle



Limit by Selection – Checked

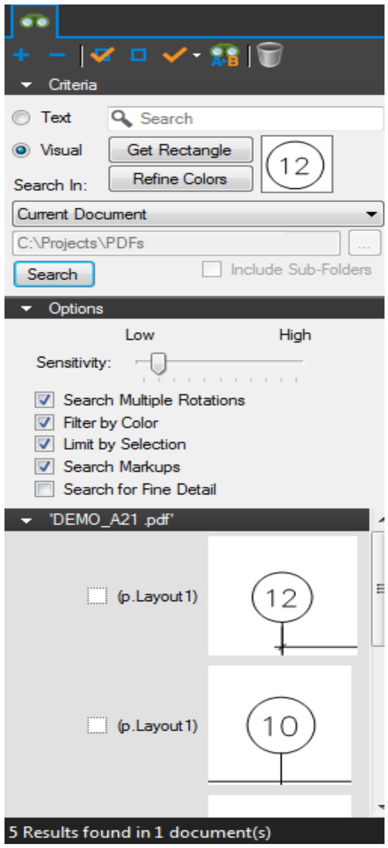


Limit by Selection – Unchecked

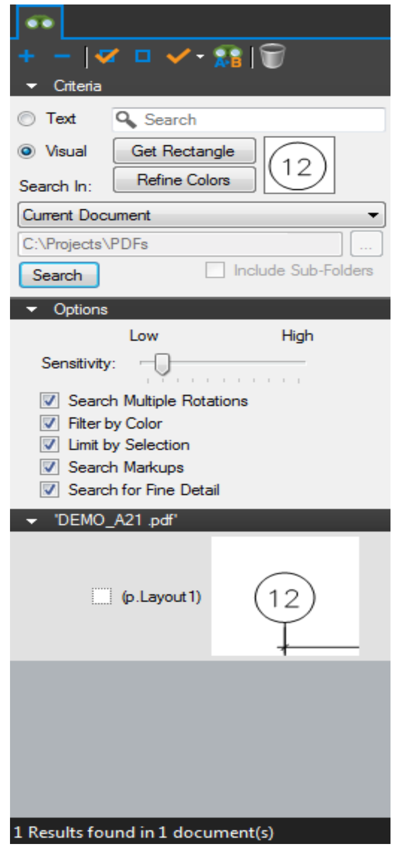


- **Search Markups**: Searches for the selection in annotations/markups.
- **Search for Fine Detail**: This option enables a refined search on the segments that might exist inside the search area symbol.

Search for Fine Detail – Unchecked



Search for Fine Detail – Checked



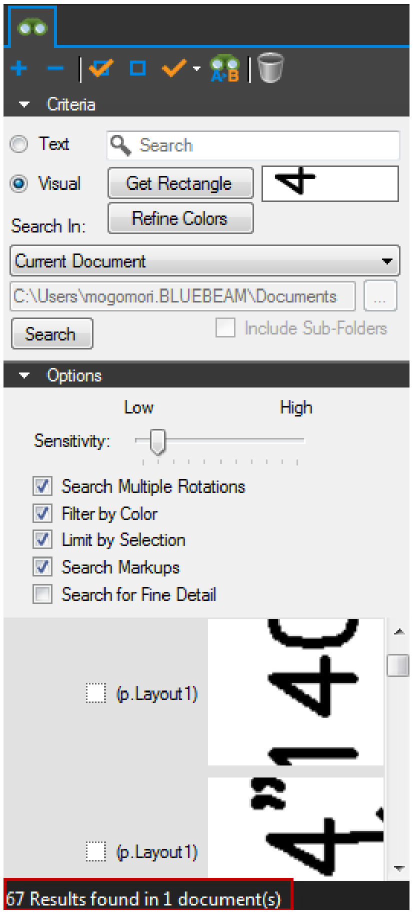
7. Click **Search**. Search results will appear under the **Options** section.

Next to each search result is a checkbox. Certain operations available in the Search toolbar can be performed on the checked items.

Search Results

The search results are shown under the Options section. A graphic of the search result and a small area around it will appear in the results list. Click on the image and the main PDF workspace will change to show that result and the area around it.

Working with Search Results for Visual Search is the same as working with results for Text Search with the exception that text based actions are not supported.


Criteria
Text
Search
Visual
Get Rectangle
Refine Colors
Search In:
Current Document
C:\Users\mogomori.BLUEBEAM\Documents
Search
Include Sub-Folders
Options
Low
High
Sensitivity:
Search Multiple Rotations
Filter by Color
Limit by Selection
Search Markups
Search for Fine Detail
(p.Layout1)
(p.Layout1)
67 Results found in 1 document(s)

MARKUP TOOLS AND TOOL CHEST

Text Box Tool

The Text Box tool is useful for placing text notes and comments on the PDF. Text is contained within a text box you define, including its size, background color, and other properties.

Creating a Text Box Markup

1. Select the **Text Box** tool using one of the following methods:
    - Go to **Markup** > **Text** > **Text Box**.
    - Click on the Text toolbar.
    - Press T on the keyboard.
2. Click a drag a rectangle to define the area of the text box.
3. Enter the desired text in the text box. Click away from the text box or press ESC to finish.

Resizing or Adjusting a Text Box Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

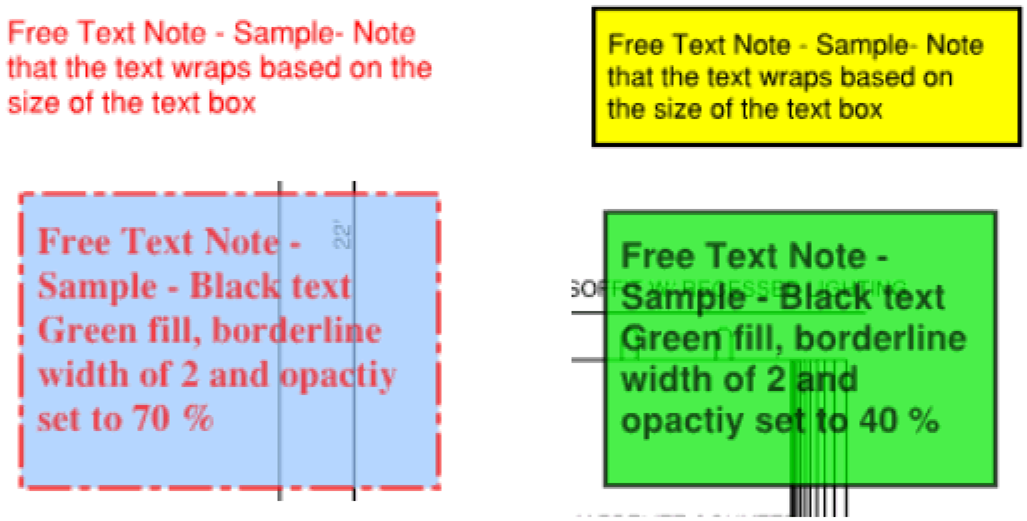
To **resize the markup**, click and drag the appropriate yellow handle.

Adding an Action to a Text Box Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Changing a Text Box's Appearance

Appearance of the text is configurable, including settings for the font as well as the box in which the text is formatted. Examples include:



The default setting for this tool is red text with no fill color.

There are two ways to change the default settings of a tool:

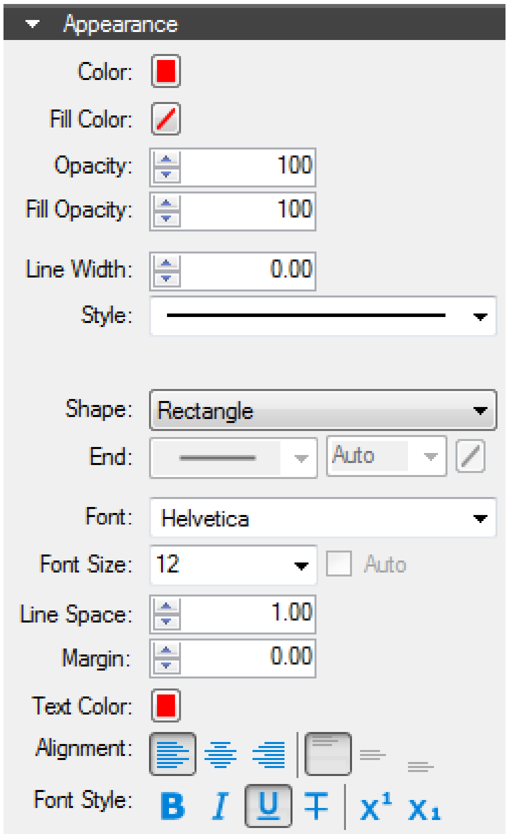
- Select an existing example with the desired settings and click **Set as Default** on its **Properties** tab.
- Select the tool and change the desired Properties ***before*** placing the markup.

The entire contents of a text box can be selected by clicking the text box. Once it has been selected, changing any of the font formatting options will apply to all text within the box.

To select particular words in a text box, click the box to make it active, then click and drag over the desired text. Any formatting you change in the Properties tab will only affect the selected text.

To change the appearance of a text box and its text, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



The **Appearance** section of the **Properties** tab contains the following options:

Color: Sets the color of the text box and leader line, if any.

Fill Color: Controls the fill color of the text box.

Opacity: Sets transparency level for the text box and the leader line.

Fill Opacity: Sets transparency level (100 = opaque, 0 = completely transparent) for the fill color.

Line Width: Sets the thickness of the line segment in points. If the Line Width is set to 0, it is effectively invisible.

Style: Determines the pattern of the line segment. The Cloud style only affect the text box; the leader line will be solid. Any styles other than Cloud will affect both the text box and the leader line.

Shape: Sets the shape of the text box.

End: This setting is grayed out because it does not apply to text boxes.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Auto: Automatically adjusts the font size of the text to the maximum value that will fit in the text box.

Line Space: Adjusts the spacing between multi-line rows of text.

Margin: Defines the amount of space between the text characters and the border of the Text Box.

Text Color: Sets the color of text.

Alignment: Defines the alignment of text within the box. The icons represent Left, Center, Right, Top Justified, Middle Justified and Bottom Justified respectively.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, Strikethrough, Superscript and Subscript. Generally, any combination of these styles can be applied to format the text.

Callout Tool

The Callout tool places a leader line connected to a text box in a selected location. The text box and arrows are moved independently. Drag the text box or arrow to a new location and the leader line will stretch so they continue to be connected. Multiple leader lines can be created so the same text can point to multiple locations in the document.

- Creating a Callout
- Resizing or Adjusting a Callout
- Adding Leader Lines
    - Removing a Leader Line
- Adding an Action to a Callout Markup
- Changing a Callout's Appearance
    - Appearance Properties

Creating a Callout

1. Select the **Callout** tool using one of the following methods:
    - Go to **Markup** > **Text** > **Callout**.
    - Click on the Shapes toolbar.
    - Press Q on the keyboard.
2. Click to set the location of the arrow at the end of the leader line.
3. Click to set the location of the text box. The leader line will automatically connect to the callout box, which will be ready to accept text.
4. Enter the desired text. Click away from the text box or press ESC to finish.

Resizing or Adjusting a Callout

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle. By default, the markup is rotated in increments of 1°; to rotate in increments of 15°, hold down CTRL while dragging.

To **resize the markup**, click and drag the appropriate yellow handle.

To **move only the text box**, click inside the text box and drag it to the desired location. Alternatively, click and drag the leader line (not its handles).

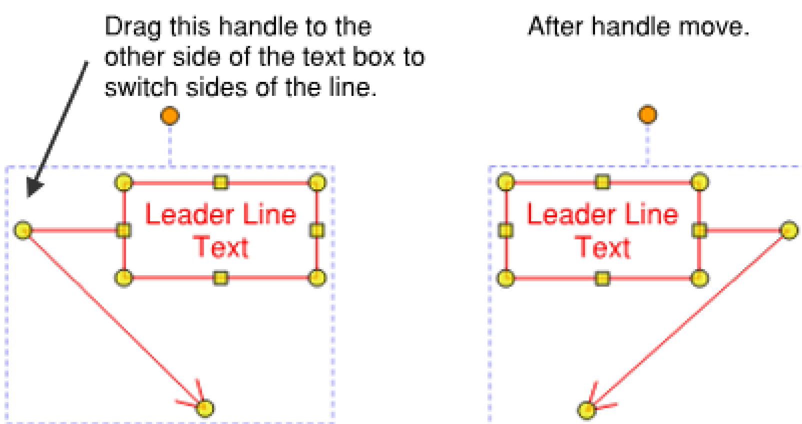
The arrow will remain where it is and the leader will automatically adjust to text box's new location.

To **move only the leader arrow**, click and drag the arrow's yellow control handle to a new location. The text box will remain in the same location.

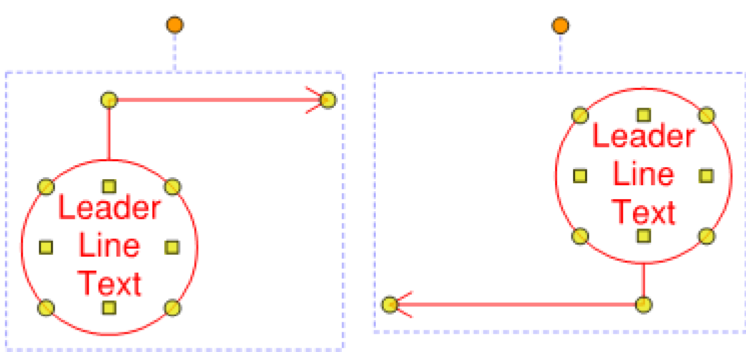
To **move the entire markup together**, hold down ALT while moving any part of the markup.

To **move the leader origin from one side of the text box to the other**, click and drag the leader line's bend (or "knee") control handle to the desired side.

See the examples below.



Similarly the leader origin can be moved to the top or bottom of the callout.

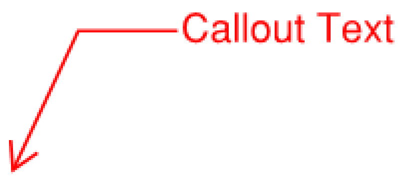


Adding Leader Lines

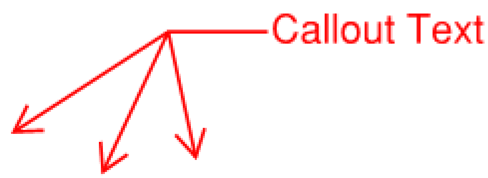
Multiple leader lines can be added to a callout.

1. Right-click the callout and select **Add Leader**.
    - Alternatively, hold down the SHIFT key and click the yellow handle at the bend (or "knee") of the leader line.
2. Click to set the location of the arrow of the new leader line.

Callout



Multi-leader Callout



Removing a Leader

There are two ways to remove a leader:

- Right-click on the desired leader and select **Delete Leader**.
- Hold down the SHIFT key and click the control point at the end of the arrow.

Adding an Action to a Callout Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Changing a Callout's Appearance

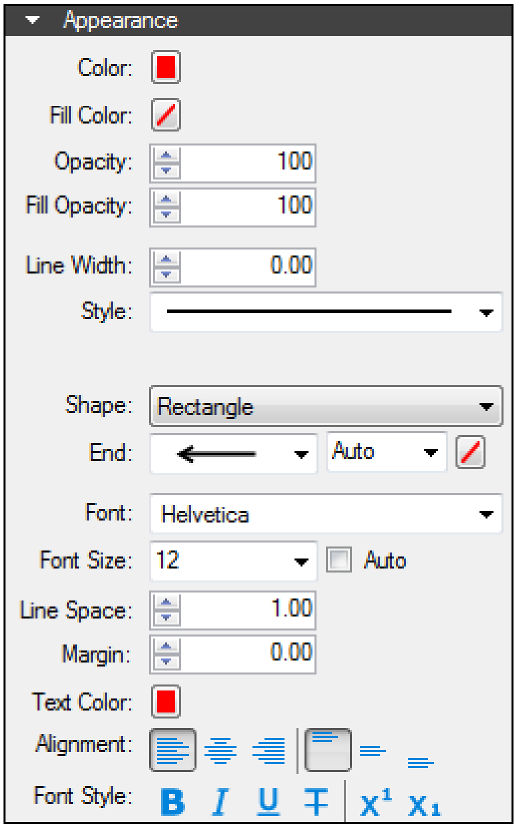
The appearance of the text, text box, and leader lines of a Callout markup are all configurable.

The entire contents of a callout text box can be selected by clicking the text box. Once it has been selected, changing any of the font formatting options will apply to all text within the box.

To select particular words in a callout text box, click the box to make it active, then click and drag over the desired text. Any formatting you change in the Properties tab will only affect the selected text.

To edit the appearance of a Callout markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



The **Appearance** section of the **Properties** tab contains the following options:

Color: Sets the color of the text box and leader line, if any.

Fill Color: Controls the fill color of the text box.

Opacity: Sets transparency level for the text box and the leader line.

Fill Opacity: Sets transparency level (100 = opaque, 0 = completely transparent) for the fill color.

Line Width: Sets the thickness of the line segment in points. If the Line Width is set to 0, it is effectively invisible.

Style: Determines the pattern of the line segment. The Cloud style only affect the text box; the leader line will be solid. Any styles other than Cloud will affect both the text box and the leader line.

Shape: Sets the shape of the text box.

End: Controls the appearance of the end point of the line.

- Click the first list to choose a different arrowhead or end type.
- Click the second list to choose the size of the arrow.

- Click the color button to change the color of a filled arrow.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Auto: Automatically adjusts the font size of the text to the maximum value that will fit in the text box.

Line Space: Adjusts the spacing between multi-line rows of text.

Margin: Defines the amount of space between the text characters and the border of the Text Box.

Text Color: Sets the color of text.

Alignment: Defines the alignment of text within the box. The icons represent Left, Center, Right, Top Justified, Middle Justified and Bottom Justified respectively.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, Strikethrough, Superscript and Subscript. Generally, any combination of these styles can be applied to format the text.

Cloud Tool

The Cloud tool is a Polygon markup with a cloud-like appearance preset. As such, the behavior of the Cloud tool is the same as the behavior of the Polygon tool.

Creating a Cloud Markup

1. Select the **Cloud** tool using on the following methods:
   - Go to **Markup** > **Shapes** > **Cloud**.
   - Click on the Shapes toolbar.
   - Press C on the keyboard.
2. To create a rectangular cloud, click and drag the shape.
3. To create a polygonal cloud:
   a. Click to define each point of the shape.
      - To remove the last point placed, press BACKSPACE.
   b. Finish the cloud shape using any of the following methods:
      - Click the first point again to close the shape.
      - Press ENTER or C on the keyboard to automatically close the shape by connecting the last point placed to the first point placed.
      - Double-click when placing the last point to automatically close the shape by connecting the last point placed to the first point placed.

Tips:

- Hold down SHIFT while dragging the cloud to force the shape into a square.

Working with Control Points and Curves

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Attaching a Note to a Cloud Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Cloud Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Cloud Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize the markup**, click and drag the appropriate yellow handle.

- Hold down CTRL while dragging a yellow control handle to curve the lines attached to it.

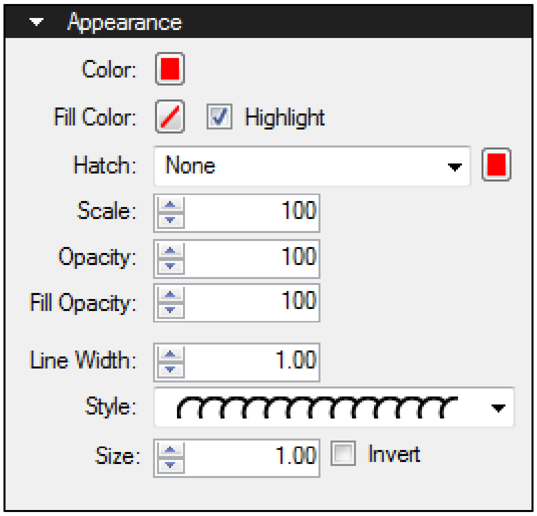
To **scale the markup up or down**, click and drag the appropriate purple handle.

Changing a Cloud Markup's Appearance

The appearance of the Cloud markup is configurable, including its line and fill color, hatch pattern, line width and style, and opacity.

To change the appearance of a Cloud markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

The **Size** and **Invert** settings below only appear when **Style** is set to **Cloud** (when applicable).

Size: Sets the width of the cloud segments.

Invert: Inverts the cloud segments inward on the shape.

Size = 2.00 Size = 1.00 and Inverted

Cloud+ Tool

The Cloud+ tool is a Polygon markup with a cloud-like appearance and callout box preset. It is essentially the Cloud Tool and the Callout Tool combined into one tool. It appears as a single markup in the Markups list.

Creating a Cloud+ Markup

1. Select the **Cloud+** tool using on the following methods:
   - Go to **Markup** > **Shapes**> **Cloud+**.
   - Click on the Shapes toolbar.
   - Press K on the keyboard.
2. To create a rectangular cloud:
   a. Click and drag on the PDF to create the cloud.
   b. Click again to place the callout.
3. To create a polygonal cloud:
   a. Click on the PDF to define each point of the cloud shape.
      - To remove the last point placed, press BACKSPACE.
   b. Finish the cloud shape using any of the following methods:
      - Click the first point again to close the shape.
      - Press ENTER or C on the keyboard to automatically close the shape by connecting the last point placed to the first point placed.
      - Double-click when placing the last point to automatically close the shape by connecting the last point placed to the first point placed.
   c. Click again to place the callout.

Tips:

- Hold down SHIFT while placing a polygonal cloud to draw lines that are at horizontal, vertical, or 45° angles.
- Hold down SHIFT while placing a rectangular cloud to force the shape into a square.

Working with Control Points and Curves

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Attaching a Note to a Cloud+ Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Cloud+ Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Cloud+ Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize the markup**, click and drag the appropriate yellow handle.

- Hold down CTRL while dragging a yellow control handle to curve the lines attached to it.

To **move only the text box**, click inside the text box and drag it to the desired location. Alternatively, click and drag the leader line (not its handles).

The text box's leader line will automatically move along the cloud's edge.

To **move the entire markup together**, click and drag the cloud part of the markup.

To **move only the cloud**, hold down the ALT key while moving the cloud. The text box will not move, but its leader line will automatically adjust to stay connected to the cloud.

To **move the leader origin from one side of the text box to the other**, click and drag the leader line's bend (or "knee") control handle to the desired side.

To **scale the markup up or down**, click and drag the appropriate purple handle.

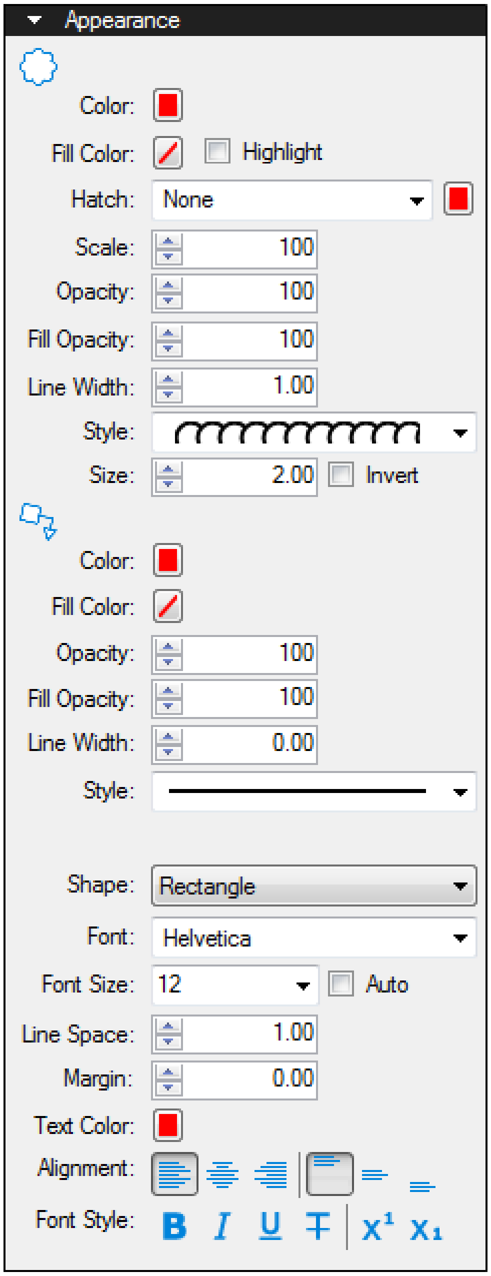
Changing a Cloud+ Markup's Appearance

The appearance of the text, text box, leader line, and cloud shape of a Cloud+ markup are all configurable. The appearance settings of the cloud portion of the markup and the callout portion are independent.

To edit the appearance of a Cloud+ markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties

The properties of a Cloud+ markup are split up into two sections, one for the cloud and one for the callout.



Cloud section

Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

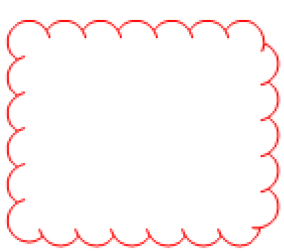
Style: Determines the line pattern.

The **Size** and **Invert** settings below only appear when **Style** is set to **Cloud** (when applicable).

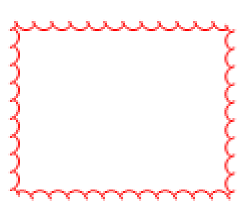
Size: Sets the width of the cloud segments.

Invert: Inverts the cloud segments inward on the shape.

Size = 2.00



Size = 1.00 and Inverted



Callout section

The **Appearance** section of the **Properties** tab contains the following options:

Color: Sets the color of the text box and leader line, if any.

Fill Color: Controls the fill color of the text box.

Opacity: Sets transparency level for the text box and the leader line.

Fill Opacity: Sets transparency level (100 = opaque, 0 = completely transparent) for the fill color.

Line Width: Sets the thickness of the line segment in points. If the Line Width is set to 0, it is effectively invisible.

Style: Determines the pattern of the line segment. The Cloud style only affect the text box; the leader line will be solid. Any styles other than Cloud will affect both the text box and the leader line.

Shape: Sets the shape of the text box.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Auto: Automatically adjusts the font size of the text to the maximum value that will fit in the text box.

Line Space: Adjusts the spacing between multi-line rows of text.

Margin: Defines the amount of space between the text characters and the border of the Text Box.

Text Color: Sets the color of text.

Alignment: Defines the alignment of text within the box. The icons represent Left, Center, Right, Top Justified, Middle Justified and Bottom Justified respectively.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, Strikethrough, Superscript and Subscript. Generally, any combination of these styles can be applied to format the text.

Polygon Tool

The Polygon tool creates a shape with an arbitrary number of sides as a markup. Unlike a polyline markup, polygons are closed shapes and, thus, can be filled. Polygons can also utilize curves and arcs.

- Creating a Polygon Markup
    - Working with Control Points and Curves
- Attaching a Note to a Polygon Markup
- Adding an Action to a Polygon Markup
- Resizing or Adjusting a Polygon Markup
- Changing a Polygon Markup's Appearance
    - Appearance Properties

Creating a Polygon Markup

1. Select the **Polygon** tool using one of the following methods:
    - Go to **Markup** > **Shapes** > **Polygon**.
    - Click on the Shapes toolbar.
    - Press SHIFT+P on the keyboard.
2. Click on each point of the desired shape.
    - To remove the last point placed, press BACKSPACE.
3. To close the polygon, do one of the following:
    - Click the first point again to close the shape.
    - Press ENTER or C on the keyboard to automatically close the shape by connecting the last point placed to the first point placed.
    - Double-click when placing the last point to automatically close the shape by connecting the last point placed to the first point placed.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Click and drag to place a rectangular shape.
    - Holding down SHIFT while doing so will force the rectangle into a square.

Working with the Control Points and Curves

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Attaching a Note to a Polygon Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Polygon Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Polygon Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize a line or change its angle**, click and drag the appropriate yellow handle.

- Hold down CTRL while dragging a yellow control handle to curve the lines attached to it.

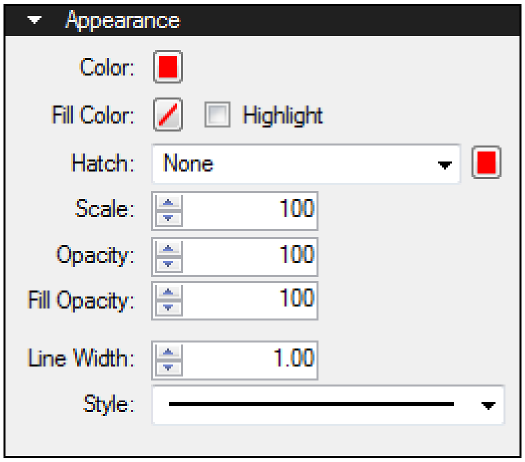
To **scale the markup up or down**, click and drag the appropriate purple handle.

Changing a Polygon Markup's Appearance

The appearance of the Polygon markup is configurable, including line and fill color, hatch pattern, line width and style, and opacity.

To change the appearance of a Polygon markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

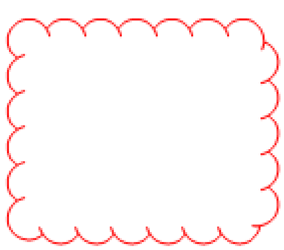
Style: Determines the line pattern.

The **Size** and **Invert** settings below only appear when **Style** is set to **Cloud** (when applicable).

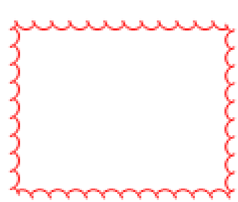
Size: Sets the width of the cloud segments.

Invert: Inverts the cloud segments inward on the shape.

Size = 2.00



Size = 1.00 and Inverted



Rectangle Tool

The Rectangle tool places a rectangular markup on the document. Holding down the SHIFT key will cause the rectangular markup to automatically form a square. The use of the Rectangle tool is nearly identical to that of the Ellipse tool.

Creating a Rectangle Markup

1. Select the **Rectangle** tool using one of the following methods:
    - Go to **Markup** > **Shapes** > **Rectangle**.
    - Click on the Shapes toolbar.
    - Press R on the keyboard.
2. Click and drag to define the size of the rectangle.
    - Alternatively, click two points to define the opposite corners of the shape.

Tips:

- Hold down SHIFT while defining the shape to force the shape into a square.

Attaching a Note to a Rectangle Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Rectangle Markupa

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Rectangle Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize the markup**, click and drag the appropriate yellow handle.

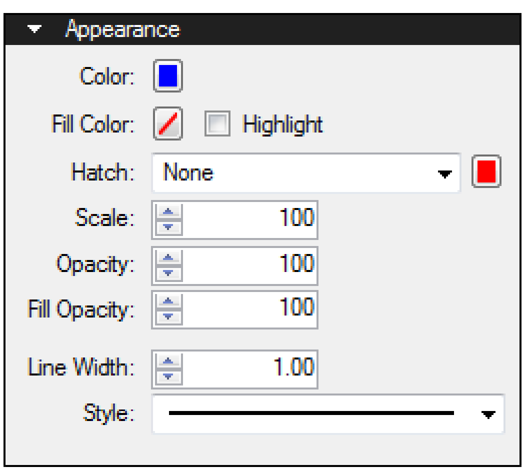
- Use the side control handles (yellow squares) to stretch or compress the markup in a single direction.
- Use the corner control handles (yellow circles) to scale the markup up or down in multiple directions.
  - Hold down SHIFT while dragging a corner control handle to force the shape into a square.

Changing a Rectangle Markup's Appearance

The appearance of the Rectangle markup is configurable, including its line and fill color, hatch pattern, line width and style, and opacity.

To change the appearance of a Rectangle markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

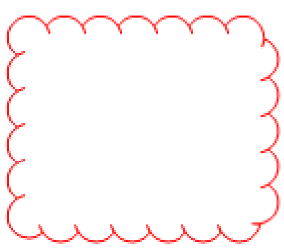
Style: Determines the line pattern.

The **Size** and **Invert** settings below only appear when **Style** is set to **Cloud** (when applicable).

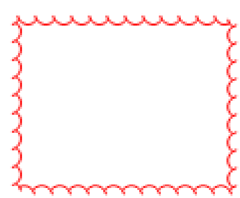
Size: Sets the width of the cloud segments.

Invert: Inverts the cloud segments inward on the shape.

Size = 2.00



Size = 1.00 and Inverted



In addition to the standard line styles, there are several advanced styles and you can create Custom Line Styles, if desired.

Ellipse Tool

The Ellipse tool places an ellipse markup on the document. Holding down the SHIFT key will cause the ellipse markup to automatically form a circle. The use of the Ellipse tool is nearly identical to that of the Rectangle tool.

Creating an Ellipse Markup

1. Select the **Ellipse** tool using one of the following methods:
    - Go to **Markup** > **Shapes** > **Ellipse**.
    - Click on the Shapes toolbar.
    - Press E on the keyboard.
2. Click and drag to define the size of the ellipse.
    - Alternatively, click two points to define the opposite corners of the shape.
    - To define a circle by its radius, hold down ALT and drag along the desired radius.

Tips:

- Hold down SHIFT while defining the shape to force the shape into a circle.

Attaching a Note to an Ellipse Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to an Ellipse Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting an Ellipse Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize the markup**, click and drag the appropriate yellow handle.

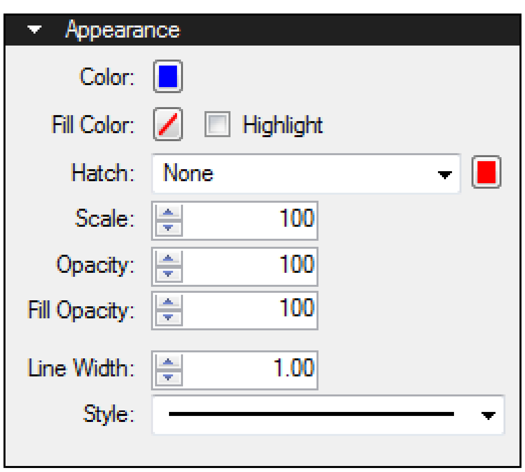
- Use the side control handles (yellow squares) to stretch or compress the markup in a single direction.
- Use the corner control handles (yellow circles) to scale the markup up or down in multiple directions.
    - Hold down SHIFT while dragging a corner control handle to force the shape into a circle.

Changing an Ellipse Markup's Appearance

The appearance of the Ellipse markup is configurable, including its line and fill color, hatch pattern, line width and style, and opacity.

To change the appearance of an Ellipse markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

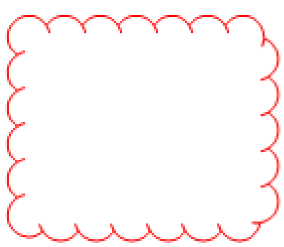
Style: Determines the line pattern.

The **Size** and **Invert** settings below only appear when **Style** is set to **Cloud** (when applicable).

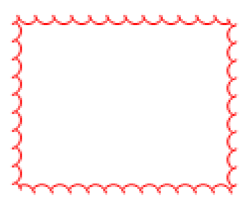
Size: Sets the width of the cloud segments.

Invert: Inverts the cloud segments inward on the shape.

Size = 2.00



Size = 1.00 and Inverted



In addition to the standard line styles, there are several advanced styles and you can create Custom Line Styles, if desired.

Polyline Tool

The Polyline tool draws a segmented line. Polylines can be configured so that their start and end points touch or overlap, but they are still considered open lines; for closed shapes, use the Polygon Tool. Polylines can also utilize curves and arcs.

Creating a Polyline markup

1. Select the **Polyline** tool using one of the following methods:
    - Go to **Markup** > **Lines** > **Polyline**.
    - Click on the Shapes toolbar.
    - Press SHIFT+N.
2. Click on the PDF to define the first point of the segmented line.
3. Click again to define the next point. A line segment is drawn between this point and the previous one. Repeat as needed.
4. To complete the line, double-click when placing the last point or press ENTER after placing the last point.
5. To close the line path and connect the last point to the first point, place the last point over the top of the first point or press C on the keyboard after placing the last point.

Note: A Polyline is an open line, even if the first and last points touch. Use the Polygon tool to create a closed shape.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.

Working with Control Points and Curves

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Attaching a Note to a Polyline Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Polyline Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Polyline Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize a line or change its angle**, click and drag the appropriate yellow handle.

- Hold down CTRL while dragging a yellow control handle to curve the lines attached to it.

To **scale the markup up or down**, click and drag the appropriate purple handle.

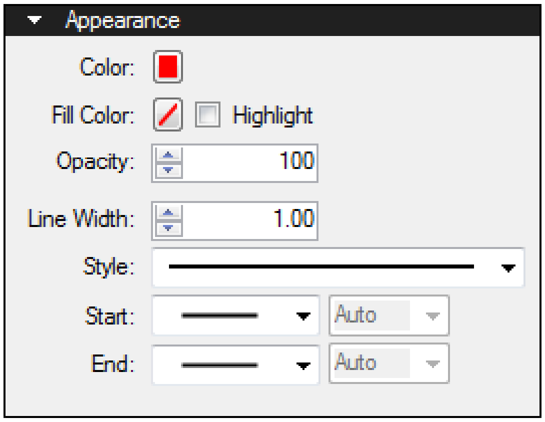
See Editing Markups for more information.

Changing a Polyline Markup's Appearance

The appearance of the Polyline markup is configurable, including its color, thickness, pattern, ends, and opacity.

To change the appearance of a Polyline markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Controls the fill color of the endpoints.

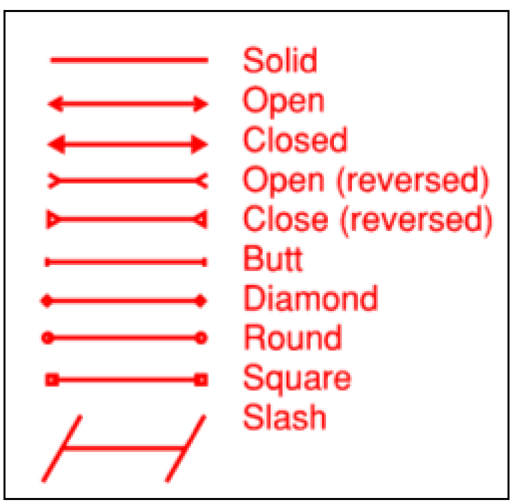
Highlight: Makes the fill color and line transparent so underlying content shows through.

Opacity: Sets opacity level of the line and endpoints, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line.

Style: Determines the pattern of the line segment.

Start and **End**: Controls the appearance of the endpoints for each side of the line. The diagram below shows samples of each type of endpoint.



Each endpoint has an associated **Scale** that determines the size of the endpoint in relation to the **Line Width**. By default, it is set to **Auto** and will automatically adjust as the **Line Width** is changed.

Polygon Sketch Tool

Like the Polygon Tool, the Polygon Sketch Tool creates a shape with an arbitrary number of sides as a markup; however, the length and rotation of the sides are input directly for exact control over the shape. Once placed, Polygon Sketch Tool markups behave very much like Polygon markups.

Before placing any Sketch Tool markup on a drawing, make sure that it is calibrated to the correct scale.

Creating a Polygon Sketch Tool Markup

1. Go to **Markup** > **Sketch** > **Polygon Sketch to Scale**. The mouse cursor in the main workspace changes to the Polygon Sketch Tool cursor.

2. Click on the PDF to place the first point. The text cursor is automatically placed in the Length field.
3. Enter the length of the side of the polygon and press TAB.
4. Enter the rotation of the side of the polygon and press ENTER. The side is drawn.
    - The rotation can be relative to the last angle entered or to the page, as determined by the Sketch Tools Preferences.
5. Repeat steps 3-4 to draw the remaining sides of the polygon.
    - To automatically close the shape, do one of the following:
        - Click the first point again to close the shape.
        - Press ENTER twice or C on the keyboard to automatically close the shape by connecting the last point placed to the first point placed.
        - Double-click when placing the last point to automatically close the shape by connecting the last point placed to the first point placed.

Working with the Control Points and Curves

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Attaching a Note to a Polygon Sketch Tool Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Polygon Sketch Tool Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Polygon Sketch Tool Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize a line or change its angle**, click and drag the appropriate yellow handle.

- Hold down CTRL while dragging a yellow control handle to curve the lines attached to it.

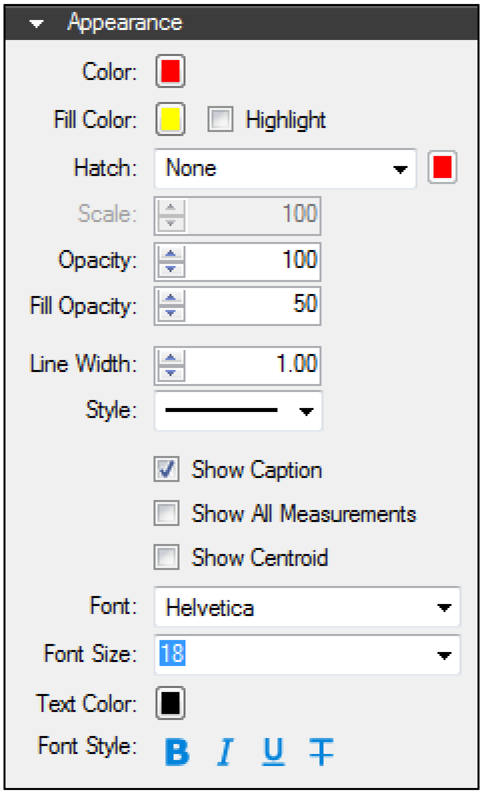
To **scale the markup up or down**, click and drag the appropriate purple handle.

Changing a Polygon Sketch Tool Markup's Appearance

The appearance of the Polygon Sketch Tool markup is configurable, including line and fill color, hatch pattern, line width and style, and opacity.

To change the appearance of a Polygon Sketch Tool markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Toggles the markup to show/hide the markup caption (as seen in the Preview Window).

Show All Measurements: Shows all measurements available for the markup.

Show Centroid: Marks the geometric center of the markup.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, Strikethrough, Superscript and Subscript. Generally, any combination of these styles can be applied to format the text.

Rectangle Sketch Tool

Like the Rectangle Tool, the Rectangle Sketch Tool places a rectangular markup on the document; however, the length and width measurements, as well as the rotation, are input directly for exact control over the shape. Once placed, Rectangle Sketch Tool markups behave very much like Rectangle markups.

Before placing any Sketch Tool markup on a drawing, make sure that it is calibrated to the correct scale.

- Creating a Rectangle Sketch Tool Markup
- Attaching a Note to a Rectangle Sketch Tool Markup
- Adding an Action to a Rectangle Sketch Tool Markup
- Resizing or Adjusting a Rectangle Sketch Tool Markup
- Changing a Rectangle Sketch Tool Markup's Appearance
    - Appearance Properties

Creating a Rectangle Sketch Tool Markup

1. Go to **Markup** > **Sketch** > **Rectangle Sketch to Scale**. The mouse cursor in the main workspace changes to the Rectangle Sketch Tool cursor.

2. Click on the PDF to place the first point. The text cursor is automatically placed in the Length field.
3. Enter the length of the rectangle and press TAB.
4. Enter the width of the rectangle and press TAB.
5. Enter the rotation of the rectangle and press ENTER. The rectangle is drawn.

Attaching a Note to a Rectangle Sketch Tool Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Rectangle Sketch Tool Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Rectangle Sketch Tool Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize the markup**, click and drag the appropriate yellow handle.

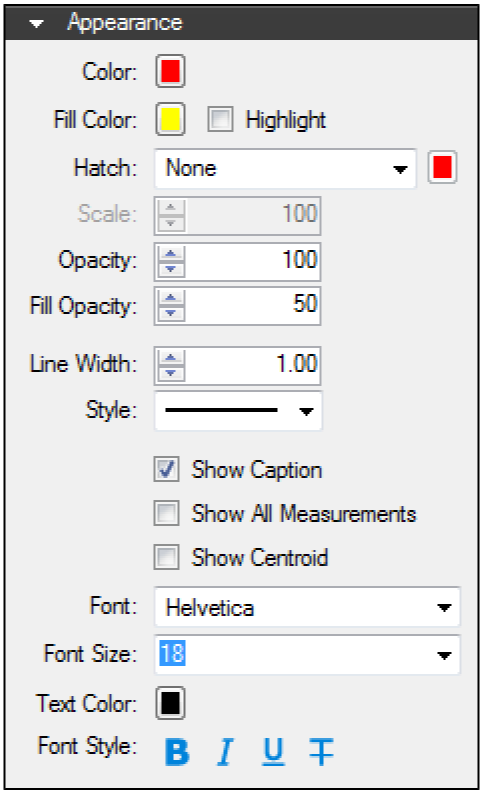
- Use the side control handles (yellow squares) to stretch or compress the markup in a single direction.
- Use the corner control handles (yellow circles) to scale the markup up or down in multiple directions.
    - Hold down SHIFT while dragging a corner control handle to force the shape into a square.

Changing a Rectangle Sketch Tool Markup's Appearance

The appearance of the Rectangle Sketch Tool markup is configurable, including its line and fill color, hatch pattern, line width and style, and opacity.

To change the appearance of a Rectangle Sketch Tool markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Toggles the markup to show/hide the markup caption (as seen in the Preview Window).

Show All Measurements: Shows all measurements available for the markup.

Show Centroid: Marks the geometric center of the markup.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, Strikethrough, Superscript and Subscript. Generally, any combination of these styles can be applied to format the text.

Ellipse Sketch Tool

Like the Ellipse Tool, the Ellipse Sketch Tool places an elliptical markup on the document; however, the height and width measurements, as well as the rotation, are input directly for exact control over the shape. Once placed, Ellipse Sketch Tool markups behave very much like Ellipse markups.

Before placing any Sketch Tool markup on a drawing, make sure that it is calibrated to the correct scale.

- Creating an Ellipse Sketch Tool Markup
- Attaching a Note to an Ellipse Sketch Tool Markup
- Adding an Action to an Ellipse Sketch Tool Markup
- Resizing or Adjusting an Ellipse Sketch Tool Markup
- Changing an Ellipse Sketch Tool Markup's Appearance
    - Appearance Properties

Creating an Ellipse Sketch Tool Markup

The information input to create an ellipse using the Ellipse Sketch Tool depends on the **Default Ellipse Mode** setting selected in the Sketch Tools Preferences. The procedure below assumes it is set to **Normal**; when it is set to **Radius**, only the radius is entered, creating a circle.

1. Go to **Markup** > **Sketch** > **Ellipse Sketch to Scale**. The mouse cursor in the main workspace changes to the Ellipse Sketch Tool cursor.

2. Click on the PDF to place the first point. The text cursor is automatically placed in the Width field.
3. Enter the width of the ellipse and press TAB.
4. Enter the length of the ellipse and press TAB.
5. Enter the rotation of the ellipse and press ENTER. The ellipse is drawn.

Attaching a Note to an Ellipse Sketch Tool Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to an Ellipse Sketch Tool Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting an Ellipse Sketch Tool Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize the markup**, click and drag the appropriate yellow handle.

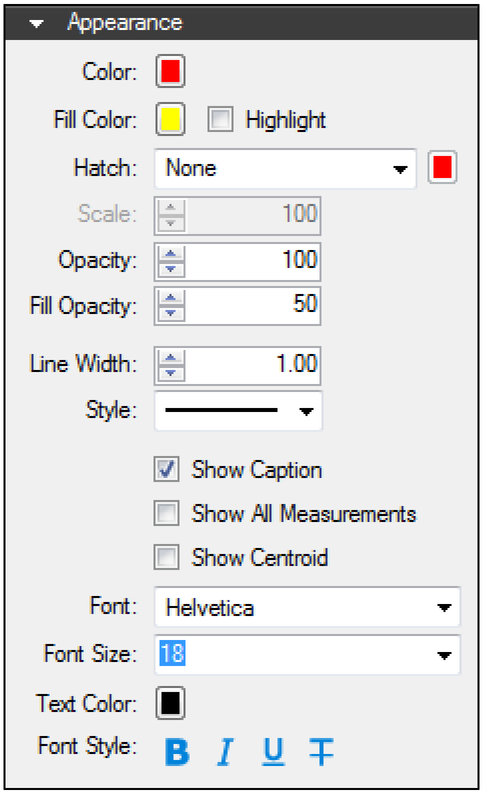
- Use the side control handles (yellow squares) to stretch or compress the markup in a single direction.
- Use the corner control handles (yellow circles) to scale the markup up or down in multiple directions.
  - Hold down SHIFT while dragging a corner control handle to force the shape into a circle.

Changing an Ellipse Sketch Tool Markup's Appearance

The appearance of the Ellipse Sketch Tool markup is configurable, including its line and fill color, hatch pattern, line width and style, and opacity.

To change the appearance of an Ellipse Sketch Tool markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Toggles the markup to show/hide the markup caption (as seen in the Preview Window).

Show All Measurements: Shows all measurements available for the markup.

Show Centroid: Marks the geometric center of the markup.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, Strikethrough, Superscript and Subscript. Generally, any combination of these styles can be applied to format the text.

Polyline Sketch Tool

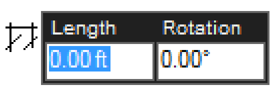
Like the Polyline Tool, the Polyline Sketch Tool draws a segmented line as a markup; however, the length and rotation of the sides are input directly for exact control over the shape. Once placed, a Polyline Sketch Tool markup behaves very much like a Polyline markup.

Before placing any Sketch Tool markup on a drawing, make sure that it is calibrated to the correct scale.

- Creating a Polyline Sketch Tool Markup
  - Working with the Control Points
- Attaching a Note to a Polyline Sketch Tool Markup
- Adding an Action to a Polyline Sketch Tool Markup
- Resizing or Adjusting a Polyline Sketch Tool Markup
- Changing a Polyline Sketch Tool Markup's Appearance
  - Appearance Properties

Creating a Polyline Sketch Tool Markup

1. Go to **Markup** > **Sketch** > **Polyline Sketch to Scale**. The mouse cursor in the main workspace changes to the Polyline Sketch Tool cursor.

2. Click on the PDF to place the first point. The text cursor is automatically placed in the Length field.
3. Enter the length of the this side of the polyline and press TAB.
4. Enter the rotation of the this side of the polyline and press ENTER. The side is drawn.
   - The rotation can be relative to the last angle entered or to the page, as determined by the Sketch Tools Preferences.
5. Repeat steps 3-4 to draw the remaining sides of the polyline.
6. To complete the line, do one of the following:
   - Press ENTER twice
   - Press C
   - Double-click the last point placed.

Working with Control Points and Curves

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Attaching a Note to a Polyline Sketch Tool Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Polyline Sketch Tool Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Polyline Sketch Tool Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize a line or change its angle**, click and drag the appropriate yellow handle.

- Hold down CTRL while dragging a yellow control handle to curve the lines attached to it.

To **scale the markup up or down**, click and drag the appropriate purple handle.

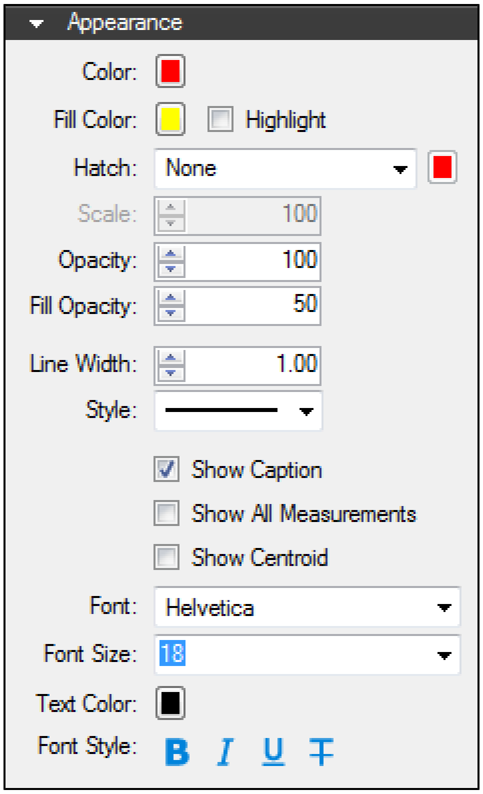
See Editing Markups for more information.

Changing a Polyline Sketch Tool Markup's Appearance

The appearance of the Polyline Sketch Tool markup is configurable, including its color, thickness, pattern, ends, and opacity.

To change the appearance of a Polyline Sketch Tool markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Toggles the markup to show/hide the markup caption (as seen in the Preview Window).

Show All Measurements: Shows all measurements available for the markup.

Show Centroid: Marks the geometric center of the markup.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, Strikethrough, Superscript and Subscript. Generally, any combination of these styles can be applied to format the text.

Arrow Tool

The Arrow tool creates a very similar markup to a line markup, but pre-configured with an arrowhead at one end for convenience.

Creating an Arrow Markup

To make a straight arrow markup:

1. Select the **Arrow** tool using one of the following methods:
    - Go to **Markup** > **Lines** > **Arrow**.
    - Click on the Shapes toolbar.
    - Press A on the keyboard.
2. Click and drag to place the markup on the document.

To make a bent arrow markup, use the Polyline tool:

1. Select the **Polyline** tool using one of the following methods:
    - Go to **Markup** > **Lines** > **Polyline**.
    - Click on the Shapes toolbar.
    - Press SHIFT+N.
2. Click on the workspace to start the line.
3. Click again to set the next point in the segmented line. Repeat as needed.
4. To complete the line, double-click when placing the last point or press ENTER after placing the last point.
5. With the line selected, go to the **Properties** tab, and select an arrowhead from the **End** list.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.

Attaching a Note to an Arrow Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to an Arrow Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting an Arrow Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

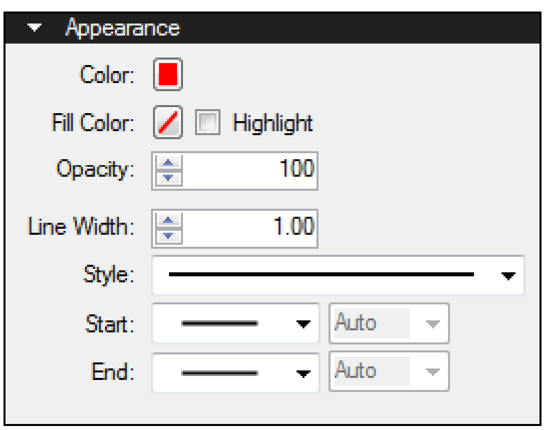
To **resize the markup or change its angle**, click and drag the appropriate yellow handle. Hold down SHIFT while dragging to force the markup to a horizontal, vertical, or 45° angle.

Changing an Arrow Markup's Appearance

The appearance of the Arrow markup is configurable, including its color, thickness, pattern, ends, and opacity.

To change the appearance of an Arrow markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Controls the fill color of the endpoints.

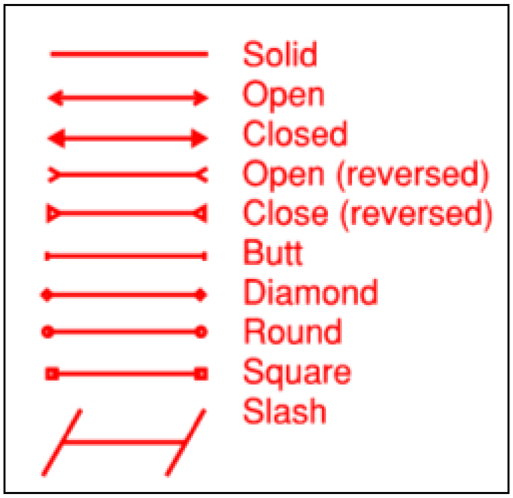
Highlight: Makes the fill color and line transparent so underlying content shows through.

Opacity: Sets opacity level of the line and endpoints, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line.

Style: Determines the pattern of the line segment.

Start and **End**: Controls the appearance of the endpoints for each side of the line. The diagram below shows samples of each type of endpoint.



Each endpoint has an associated **Scale** that determines the size of the endpoint in relation to the **Line Width**. By default, it is set to **Auto** and will automatically adjust as the **Line Width** is changed.

Pen Tool

The Pen tool is used for free form text, shapes or other unique markups.

Creating a Pen Markup

1. Select the **Pen** tool using one of the following methods:
    - Go to **Markup** > **Pen** > **Pen.**
    - Click on the Text toolbar.
    - Press P on the keyboard.
2. Click and drag to place a free form line (simulating a pen or pencil) on the PDF. Release to end the line.

Tips for using the Pen tool:

- Hold down SHIFT to draw straight horizontal or vertical lines.
- Generally speaking, any number of pen lines created at the same time are considered to be the same markup and will appear as one entry in the Markups List. Revu creates the markup after a delay of about a second. To prompt it to create the markup without waiting, press ENTER after drawing a line.

Note: The Pen tool and Touchscreen functionality can be used simultaneously, as Revu is able to distinguish between each different action.

Attaching a Note to a Pen Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Pen Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Pen Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

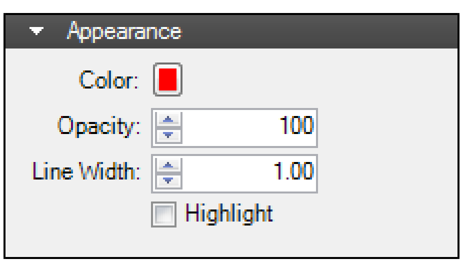
To **resize the markup**, click and drag the appropriate yellow handle.

Changing a Pen Markup's Appearance

The appearance of the pen line is configurable, including its color, thickness, and opacity. Pen lines can also act as highlights, becoming fully transparent so as to let underlying content show through.

To change the appearance of a Pen markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the color of the pen line.

Opacity: Sets the opacity level of the pen line as a percent, where 100% is completely opaque and 0% is completely transparent.

Line Width: Sets the thickness (in points) of the pen line.

Highlight: When enabled, makes the pen line appear completely transparent such that the underlying PDF content shows through without affecting its opacity.

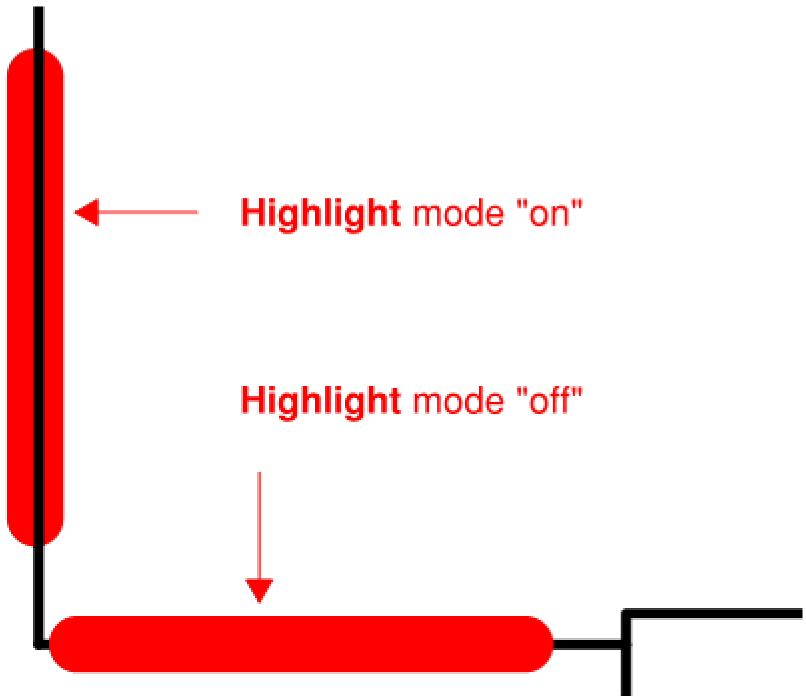


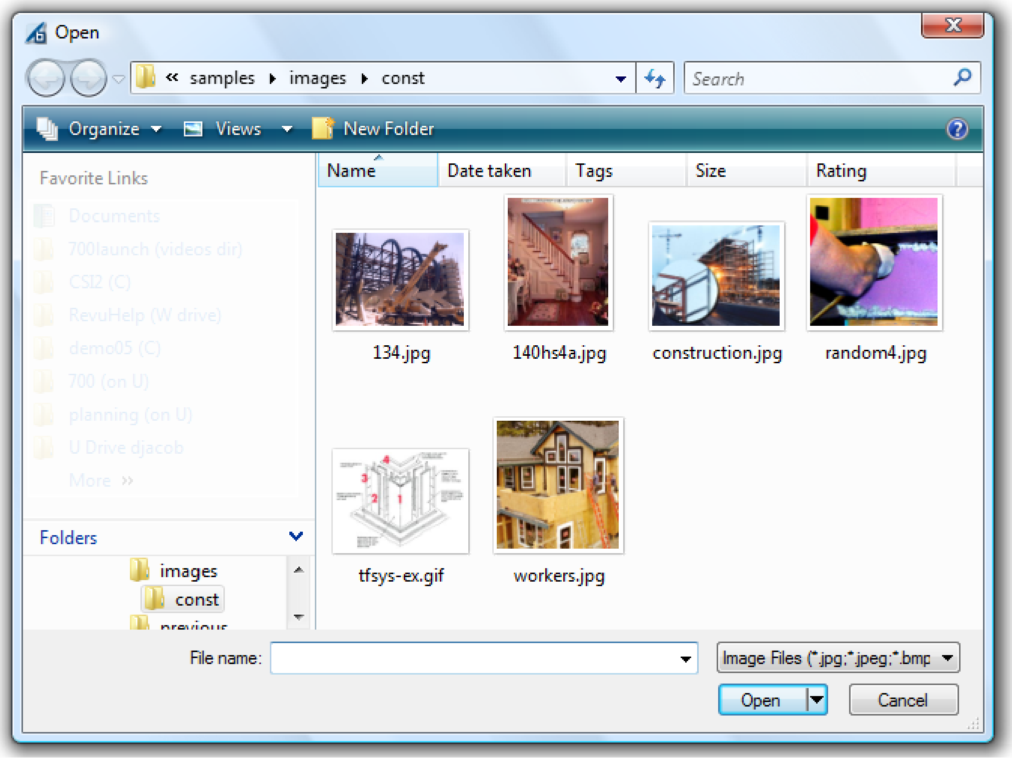
Image Tool

The Image tool places an existing graphic image as a markup on the current PDF. To create an image from a snapshot of the PDF, see the Snapshot tool.

- Creating an Image Markup
- Adding an Action to an Image Markup
- Resizing or Adjusting an Image Markup
- Changing an Image Markup's Appearance
    - Appearance Properties

Creating an Image Markup

1. Go to **Markup** > **Image** or press I on the keyboard. The **Open** dialog box appears.
2. Select the desired image file and click **Open**.



3. To place the image at its default size, click the image tool cursor on the document.
4. To force the image to fit a particular space, click and drag a rectangle with the image tool cursor .

To place an image from an attached scanner:

1. Go to **Markup** > **Image** > **Image from Scanner** or press SHIFT+I.
2. Select the scanner from the **Select Source** dialog box that appears and click **Select**.
3. A dialog box for the selected scanner appears and a scan preview is automatically generated. Do one of the following:
    - Click **Cancel** to abort the process.
    - Click **New Scan** to generate a new preview.
    - Click **Accept** to use the current scan. The scan is taken at this point.
4. Click the image tool cursor on the document to place the image at its full size. To force the image to fit a particular space, click and drag a rectangle.

Adding an Action to an Image Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting an Image Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **resize the markup**, click and drag the appropriate yellow handle.

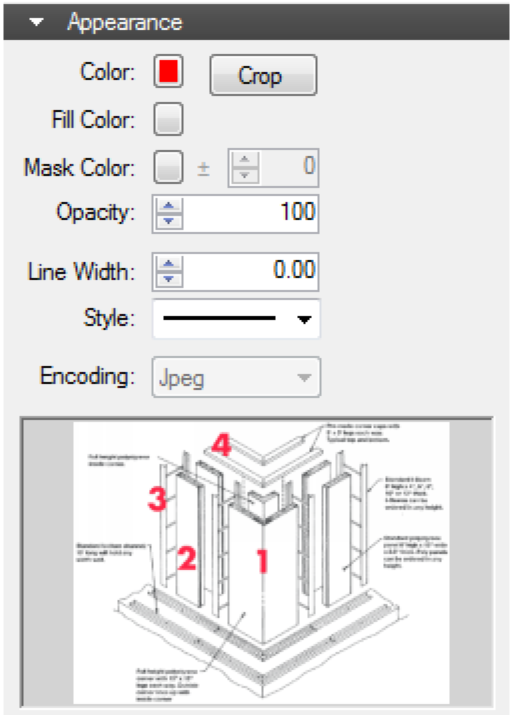
- Use the side control handles (yellow squares) to stretch or compress the markup in a single direction.
- Use the corner control handles (yellow circles) to scale the markup up or down in multiple directions.

Changing an Image Markup's Appearance

The appearance of the Image markup is configurable, including its outline style, line width and color, mask color, and opacity.

To change the appearance of an Image markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the color of the outline.

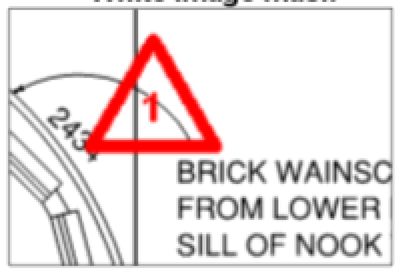
Crop: Click to Crop the image.

Fill Color: Sets the color of the interior fill of the image. Note that the Opacity needs to be reduced in order to see the effects of this setting.

Mask Color: Set this value to make a certain color of the image completely transparent. Any pixel in the image that is the defined **Mask Color** will pass through any underlying colors on the PDF through the image so that the portion of the image will appear transparent. For example, setting this value to white when you have an image on a white background and are placing on a black-and-white PDF will let the underlying PDF content show through the background, as in the example below. Set the **Mask Tolerance** by pressing the up/down controls to fine tune the sensitivity in which the underlying content shows through the mask color for the image. Increasing this setting tends to give a smoother appearance so that the image appears more natural in the PDF.

No image mask

White image mask



Opacity: Sets the level of transparency of the Image. Reducing this from the value of 100 will let the underlying PDF be seen through the image. If a Fill Color is set, the image will take on the color as defined in the Fill Color Setting.

Line Width: Sets the thickness of the line surrounding the image in points.

Style: Determines the type of line used to surround the image annotation.

Encoding: Determines the method for saving the Image once it has been embedded in the PDF. The available choices are ZIP or JPEG. In general, ZIP is better for graphics, and JPEG is better for photos.

An image preview window shows a thumbnail version of the image. Double-click on the thumbnail to swap the image for another image.

Cutting, Copying and Pasting

Bluebeam Revu supports the standard Clipboard functions allowing you to cut, copy, and paste data into and out of Revu. But, depending on what you are trying to copy, the process works a few different ways.

For the most part, these methods apply to text and markups. To copy graphics content, use Snapshot.

- Cutting, Copying, and Pasting Markups
- Copying Text Content
- Pasting in Place
- Applying a Markup to Multiple Pages

Cutting, Copying, and Pasting Markups

Cutting, copying, and pasting markups works in a way most computer users will be familiar with. The clipboard tools can be found in the Clipboard menu under the Edit group, in the Edit toolbar, from the markup context menu, and of course you can access the clipboard commands with the familiar keyboard shortcuts.

To cut a markup:

1. Click the markup to select it.
2. Use any one of the following methods to cut:
   - Go to **Edit** > **Clipboard** > **Cut.**
   - Press CTRL+X.
   - Right-click it and select **Cut.**
   - Click **Cut** on the Edit toolbar.

To copy a markup:

1. Click the markup to select it.
2. Use any one of the following methods to copy:
   - Go to **Edit** > **Clipboard** > **Copy.**
   - Press CTRL+C.
   - Right-click it and select **Copy.**
   - Click **Copy** on the Edit toolbar.

Note: Copying a Text markup (Text Box, Callout, etc.) will copy the text content of the markup, so pasting that markup in Revu will carry over the entire markup but pasting in an external application will paste the unformatted text.

To paste a markup that is already on the clipboard, use any of the following methods:

- Go to **Edit** > **Clipboard** > **Paste**.
- Press CTRL+V.
- Right-click and select **Paste**.
- Click **Paste** on the Edit toolbar.

Tip: When using either the CTRL+V keyboard shortcut or the right-click > **Paste** method, the markup is pasted at the current position of the mouse cursor (specifically, the lower-left corner is placed on the cursor).

Copying Text Content

While text markups can be copied in the familiar way, copying text out of the content of a PDF requires an extra step. Because that text is in the content, you have to first select it before it can be copied.

1. Go to **Edit** > **Select** > **Select Text**.
   - If you wish to select all the text in a document, use **Select All Text** instead.
2. Click and drag over the desired text. Selected text is highlighted.
3. Use any of the following method to copy:
   - Go to **Edit** > **Clipboard** > **Copy**.
   - Press CTRL+C.
   - Right-click it and select **Copy**.
   - Click **Copy** on the Edit toolbar.

Pasting in Place

Paste in place places the pasted content in the same position that it was cut or copied from. When it is used on the same page as the cut or copied content, this means the pasted content is returned to its original position. When it is used on a different page, the pasted content is placed in the same location on that page as the one it was originally cut or copied from.

Use either of the following methods to paste in place:

- Go to **Edit** > **Clipboard** > **Paste in Place.**
- Press CTRL+SHIFT+V.

Applying a Markup to Multiple Pages

There are two options for applying a markup to multiple pages, Apply to All Pages and Apply to Selected Pages. Both are essentially automated instances of Paste in Place.

Apply to All Pages

This will copy and paste in place a markup onto all pages of a PDF.

- Right-click the desired markup and select **Apply to All Pages**.

Apply to Selected Pages

Apply to Selected Pages works like Apply to All Pages, but instead applies the markup to the pages that are currently selected in the **Thumbnails** tab.

1. Click a markup to select it.
2. On the **Thumbnails** tab, press and hold CTRL while clicking the desired pages to select them.
3. Right-click the markup and select **Apply to Selected Pages**.

Snapshot

The Snapshot tool copies text and raster or vector content to the clipboard. When a Snapshot is pasted in a PDF with Revu, vectors will remain editable; when pasted into an external application, a raster image will be pasted.

Copying Graphics Content with Snapshot

1. Go to **Edit** > **Snapshot**.
2. Click and drag a rectangle or click the desired points to define a polygonal shape around the desired area. The area defined flashes blue, indicating a Snapshot has been taken.
3. Press ESC to exit Snapshot mode.
4. Use any of the following methods to paste the Snapshot within Revu:
   - Go to **Edit** > **Clipboard** > **Paste**.
   - Press CTRL+V.
   - Right-click and select **Paste**.
   - Click **Paste** on the Edit toolbar.

Tip: When using either the CTRL+V keyboard shortcut or the right-click > Paste method, the snapshot is pasted at the current position of the mouse cursor (specifically, the lower-left corner is placed on the cursor).

Note: Text in a Snapshot cannot be edited using Edit Text until the Snapshot has been flattened.

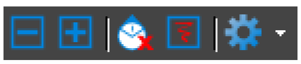
Tool Chest Tab

The Tool Chest is a powerful feature that makes marking up documents much more efficient, giving you a place to store your most used markups in a central, easily accessible location.

Go to **View** > **Tabs** > **Tool Chest** or press ALT+X to show the **Tool Chest** tab.

- Tool Chest Tab Toolbar
- Tool Sets

Tool Chest Tab Toolbar



The Tool Chest tab toolbar contains commands to make working with markups more efficient.

Decrease Icon Size: Reduces the size of the tool icons.

Increase Icon Size: Enlarges the tool icons.

Toggle Mode: Toggles the selected icon between Properties mode and Drawing mode.

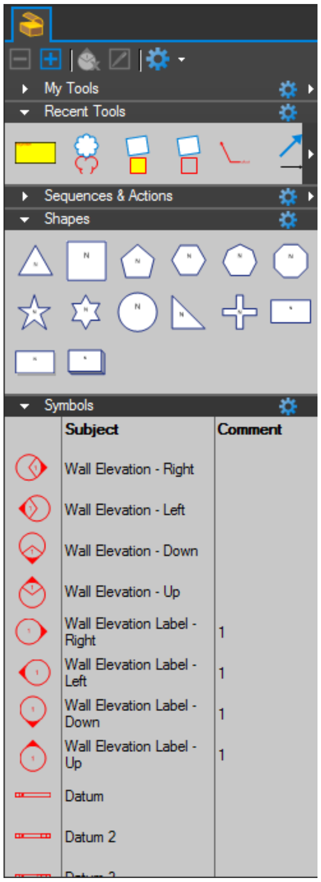
Delete Icon: Removes the selected tool from the Tool Chest.

Manage Tool Sets: Opens the **Manage Tool Sets** dialog box to add, import, export, reorder, and remove Tools Sets. See Managing Tool Sets for more information.

Manage Tool Sets menu: Click the arrow to the right of the **Manage Tools Sets** icon to reveal a menu of the currently active Tool Sets. Select a tool set to show it in the Tool Chest tab. See Managing Tool Sets for more information.

Tool Sets

The Tool Chest is organized into different tool sets. Each Profile comes with a certain number of additional tool sets enabled by default.



Each tool set has a title bar with a toggle triangle at the left and a Properties menu at the right. Click the triangle to collapse or expand the tool set. To quickly hide a tool set completely, go to > **Hide**. To show a tool set that has been hidden, see Managing Tool Sets: Hiding or Showing Tool Sets.

Tool Sets can be shown in either **Symbol** or **Detail** modes. Click the Properties menu for the desired Tool Set and select the desired mode.

Two tool sets are available in all Profiles: My Tools and Recent Tools.

My Tools is a permanent tool set for markups that you use frequently. Any markup stored in this panel will remain between sessions of Revu.

Recent Tools is a permanent tool set that records recently used markups. This enables you to easily reuse a recent markup without needing to recreate it. Tools in the Recent Tools tool set are temporary; the tool set is cleared when Revu is closed, though tools can be saved permanently by moving them out of Recent Tools to another tool set.

Users can also add tool sets to different Profiles, create and import new tool sets, and share tool sets across a network. See Managing Tool Sets for more information.

Also worth special consideration is the **Sequence & Action** tool set. A Sequence allows a text based markup to increment in value each time that a markup is added to the PDF. The updating sequence value can be a number or text. An Action allows you to add hyperlinks to tools in the Tool Chest.

Working with the Tool Chest

The Tool Chest makes marking up documents much more efficient by storing and organizing frequently used markups for easy use and reuse. It automatically remembers recently used markupsand can reapply a markup in its entirety or just using its properties.

- Using Tools and Tool Sets
- Reusing Recent Tools
    - Permanently Saving a Tool to be Reused
- Special Properties of the My Tools Tool Set
- Properties Mode vs Drawing Mode
- Pinning a Tool Set

Using Tools and Tool Sets

To save a markup from a PDF to the Tool Chest, right-click it and go to **Add to Tool Chest** then select the desired tool set.

To use a tool to place a markup on a PDF, click the tool in the Tool Chest to select it, then click on the document to place the markup.

To copy a tool in one tool set to another tool set, click and drag the icon to the desired tool set.

To reorder the tools within a set, click and drag the icon to the desired location.

To delete a saved tool, use any of the following methods:

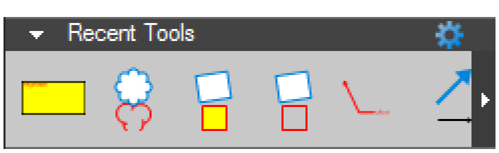
- Click a tool to select it, then click **Delete Icon** on the Tool Chest toolbar.
- Click a tool icon to select it, then press the DELETE key.
- Right-click a tool icon and select **Delete**.

To duplicate a tool, right-click a tool icon and select **Duplicate**.

To change the colors of a tool, right-click a tool icon and select **Change Colors**. On the **Change Multiple Colors** dialog box that appears, change the desired **Destination Colors**.

Reusing Recent Tools

The **Recent Tools** tool set records markups as they are added to the PDF.



To reuse a tool, click the icon to select the tool and click on the PDF to place the markup.

When more tools have been saved in **Recent Tools** than can be shown, an arrow appears to the right of the tools as shown in the image above. To see all the tools in **Recent Tools**, click the arrow.

The maximum number of tools that are kept in **Recent Tools** is configurable. To change the maximum number of tools kept, click the Properties gear to the right of **Recent Tools**, go to **Maximum Recents** and select the desired value.

The **Recent Tools** history is automatically cleared when Bluebeam Revu is closed. To clear your recent tools before then, click the Properties gear to the right of **Recent Tools** and select **Clear Recents**.

Permanently Saving a Tool to be Reused

To save a recently used tool so it will remain available after Revu has been closed, do one of the following:

- Click and drag the tool's icon from **Recent Tools** into another tool set.
- Right-click the tool's icon in **Recent Tools** and select **Add Item to My Tools**. Be aware that this method automatically saves the tool to the **My Tools** tool set. Use the click-and-drag method described above to save the tool to a different tool set.

To save a markup on the document as a reusable tool, right-click the desired markup, then go to **Add to Tool Chest** and select the tool set to which you wish to save it.

Special Properties of the My Tools Tool Set

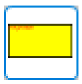
The **My Tools** tool set is designed to be a configurable collection of frequently used tools that provides easy access to them. As such, it has a few special properties:

- Tools in the **My Tools** tool set are automatically assigned hot keys for quick access. The hot keys are numeric, according to the tools position in the **My Tools** tool set. Its hot key is shown in the upper right corner of its icon in the **My Tools** tool set and changing a tool's position in the **My Tools** tool set automatically changes its associated hot key.

- The **My Tools** tool set is a permanent part of Revu. It is available in all Profiles by default and, while it can be hidden, it cannot be completely removed.
- Tools in the **My Tools** tool set can be toggled between Properties Mode and Drawing Mode.

Properties Mode vs Drawing Mode

Most tools found in **My Tools**, **Recent Tools**, and custom tool sets can function in two different modes: Drawing Mode and Properties Mode (described below). Double-click a tool in any of these tool sets or click / **Toggle Mode** (which icon is shown depends on which mode is currently active) in the Tool Chest toolbar to switch between modes. The tool's icon changes to show which mode is currently being used.


Drawing Mode

Properties Mode

Properties mode adds a new markup with the same appearance properties of the saved markup. In this mode the Properties (as shown on the Properties tab) are retained but the exact dimensions, text, and so on are not. In the example above, using the tool in Properties mode would create a new yellow text box with black border and red text color, but no text would be inside the box yet, nor would the box have a fixed size.

Drawing mode adds a new markup that is an exact duplicate of the saved markup, as if you'd copied and pasted the original markup rather than made a new one of a similar type.

To change the mode of a tool in any of these tool sets, double-click on the tool's icon or select it and click / **Toggle Mode** (which icon is shown depends on which mode is currently active) in the Tool Chest toolbar. All information of the original markup is always retained when switching modes. Only the icon and the way that the markup is added to the file changes when the mode is changed. By default, most tools are saved in Properties Mode, though there are some markups that always remain in Drawing Mode; Stamps and Grouped markups are two examples.

If a tool has a defined Action, the action will only be added to markups created with it when in Drawing mode.

The **Recent Tools** tool set can be configured to default to either Properties Mode or Drawing Mode. To set the mode, click the Properties gear to the right of **Recent Tools** and either check or uncheck **Properties Mode**, as desired.

Pinning a Tool Set

For quick and easy access, a tool set can be pinned to any Toolbar. To do so, click the Properties gear to the right of the section name, then go to **Pin** and select the specific Toolbar.

Scaling a Tool Set

Tool sets can be created at a certain scale and set to automatically scale up or down when placed in a calibrated drawing or viewport using Revu's Dynamic Tool Set Scaler. This can be a particularly powerful tool option, especially when used in conjunction with Sketch Tools, which allows for the creation of precisely sized markups.

Once a scaling tool has been placed on a PDF, its scale is set and it will no longer automatically scale up and down.

Setting a Baseline Scale for a Tool Set

To set the baseline scale of a tool set:

1. Click the gear to the right of the section name and select **Set Scale**. The **Set Baseline Scale** dialog box appears.
2. Enter the scale or click **Calibrate** to open the Calibration tool.
3. Click **OK**. A icon appears to the right of the tool set's name to indicate that a baseline scale has been established.

Repeat the process to change the scale, if necessary.

Toggling Scaling On and Off

When a tool set has a baseline scale set, the icon appears to the right of its name.

When a tool set has an established baseline scale, you can choose whether or not the tools from it will scale when placed on a drawing. To turn scaling on, click the icon to the right of the tool set's name. It will be outlined to indicate that scaling has been turned on.

To turn scaling off, click the icon again.

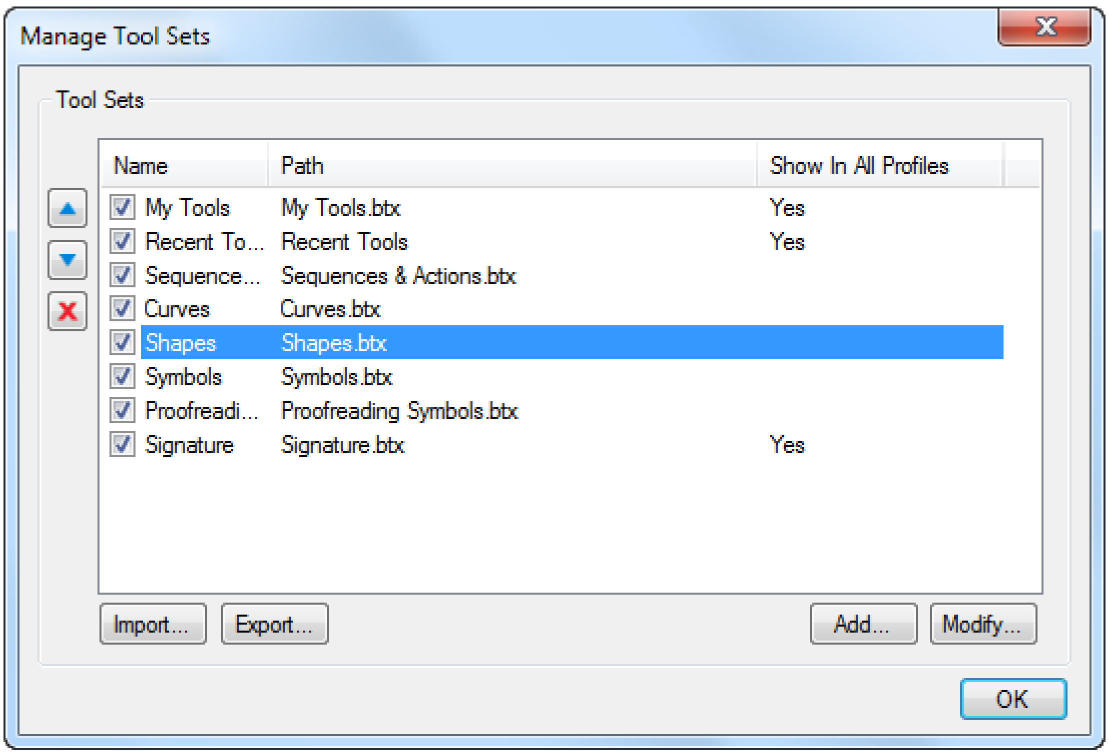
Managing Tool Sets

Tool sets can be created and shared among different users of Revu. These tool sets can be saved locally, shared across a network, or exported and sent to other users. Sharing tool sets is useful for setting standard markups for different projects, job functions, clients, and more. Effective management of tool sets is an important part of getting the most out of Revu.

Reordering Tool Sets

The order in which tool sets appear in the Tool Chest tab is configurable. To change this order:

1. Go to **View** > **Tabs** > **Tool Chest** or press ALT+X to show the **Tool Chest** tab.
2. Click **Manage Tool Sets**. The **Manage Tool Sets** dialog box appears.



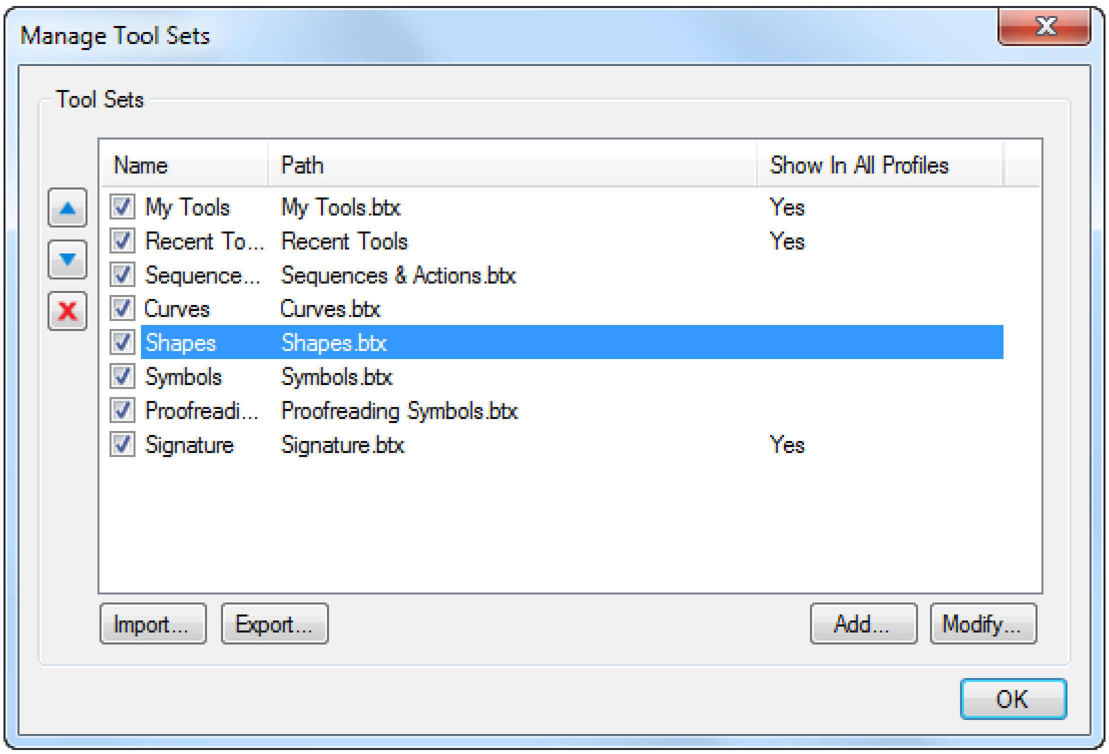
3. Click the tool set you wish to reorder in the **Tools Sets** list and use the up and down arrows to move it.
4. Click **OK**.

The order of the tool sets in the **Tool Chest** tab will mirror the order shown in the **Tool Sets** list of the **Manage Tool Sets** dialog box.

Hiding or Showing Tool Sets

You can choose whether to show or hide tools sets in your current Profile. To hide or show a tool set for another Profile, change over to it first. To show or hide a tool set in the current Profile:

1. Go to **View** > **Tabs** > **Tool Chest** or press ALT+X to show the **Tool Chest** tab.
2. Click **Manage Tool Sets**. The **Manage Tool Sets** dialog box appears.



3. To hide a tool set, uncheck the box beside its name.
4. To show a tool set, check the box beside its name.
5. Click **OK**.

Checked tool sets are shown and unchecked tool sets are hidden for the current Profile.

Show In All Profiles: In addition to defining whether a tool set is hidden or shown by Profile, you can also set a tool set to automatically show in all Profiles:

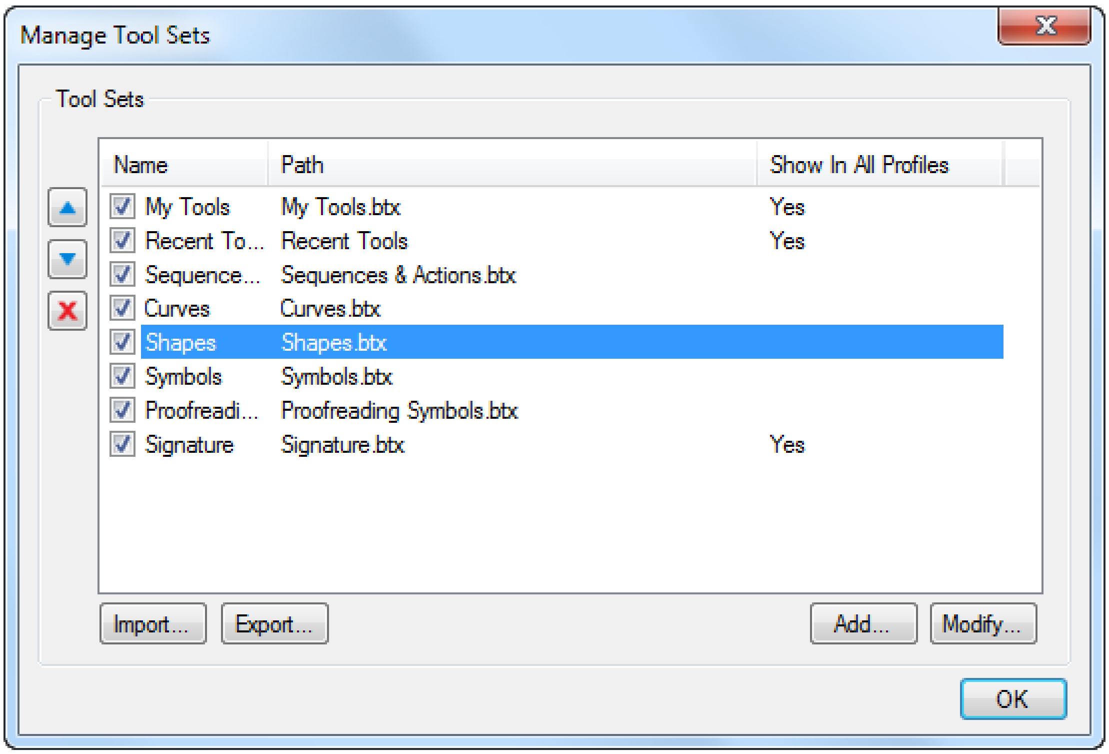
1. In the **Manage Tool Sets** dialog box, click a tool set's name to select it.
2. Click **Modify**. The **Modify Tool Set** dialog box appears.

3. Select **Show In All Profiles**.
4. Click **OK**. The **Modify Tool Set** dialog box closes.
5. Click **OK** again.

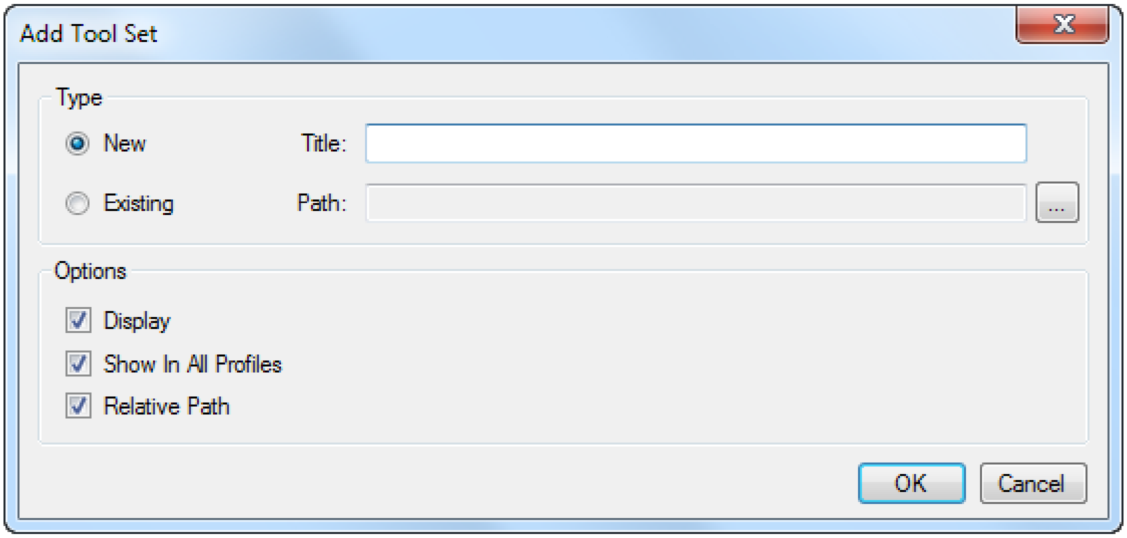
Creating a New Tool Set

New tool sets can be added to the Tool Chest tab. This makes organizing tools that are specific to your workflow simple.

1. Go to **View** > **Tabs** > **Tool Chest** or press ALT+X to show the **Tool Chest** tab.
2. Click **Manage Tool Sets**. The **Manage Tool Sets** dialog box appears.



3. Click **Add**. The **Add Tool Set** dialog box appears.



4. Select **New** and enter the **Title** of the tool set.
5. To show the new tool set in the Tool Chest, select **Display**.
6. To show the new tool set in all Profiles, select **Show In All Profiles**.
7. To store the location to this tool set relative to the location of the current Profile, select **Relative Path**. Uncheck this option to save the full folder path to the tool set instead. For more information about Relative vs Full Paths, see Understanding Relative vs Full Paths.
8. Click **OK**. You will be prompted to choose a location to save the new tool set. Choose an appropriate location and then click **Save**.

Adding and Importing Existing Tool Sets

Additional tool sets can be **Added** or **Imported** to the Tool Chest.

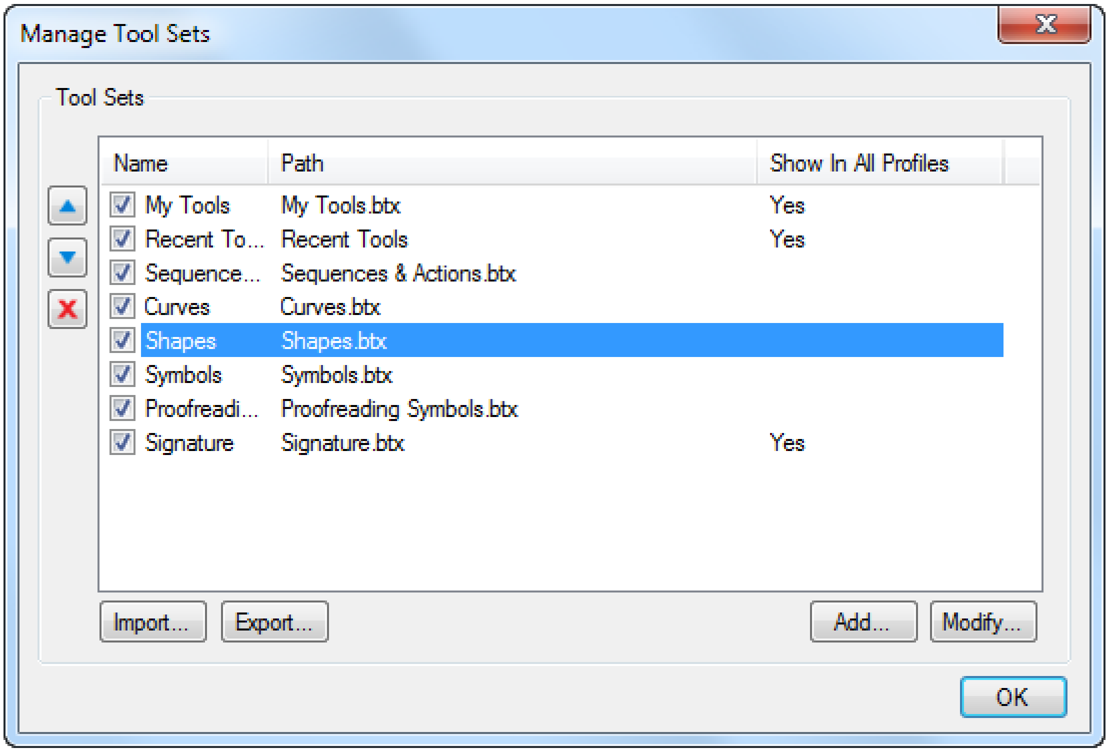
- Adding will list the tool set while leaving the tool set's file in its original location. Add a tool set when you want to share a tool set on a network drive and keep all user's versions of that set the same.
- Importing the tool set will make a copy of the tool set and store it in your default location. Use import when the tool set will be used only by the local user, or if you do not want local changes to sync with other users' copies.

This section covers the basic import procedure; for specific instructions in importing Punch or Estimation tool sets, refer to the sections on those workflows.

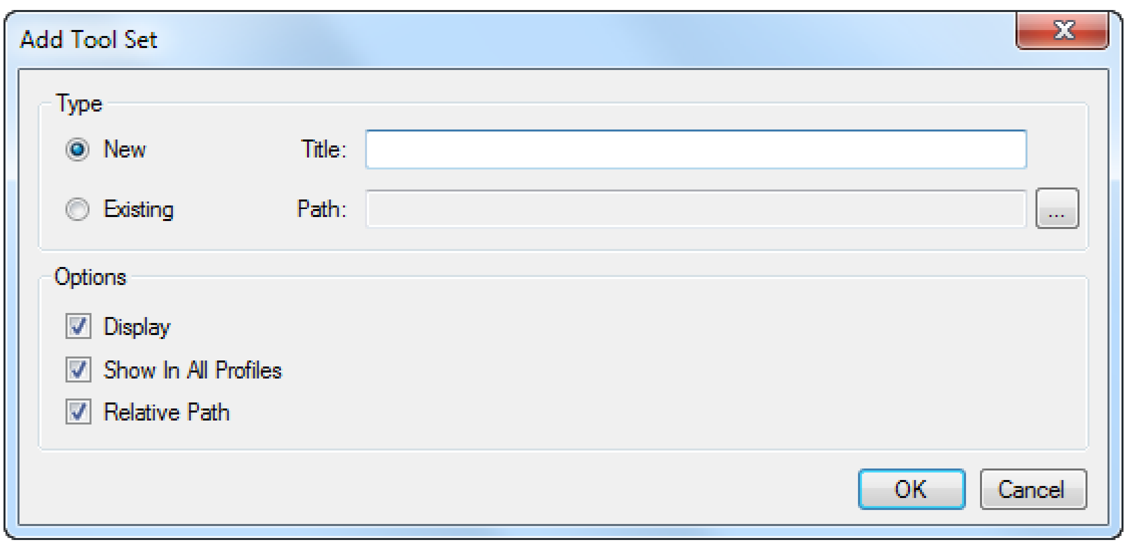
Adding an Existing Tool Set

1. Go to **View** > **Tabs** > **Tool Chest** or press ALT+X to show the **Tool Chest** tab.

2. Click **Manage Tool Sets**. The **Manage Tool Sets** dialog box appears.



3. Click **Add**. The **Add Tool Set** dialog box appears.

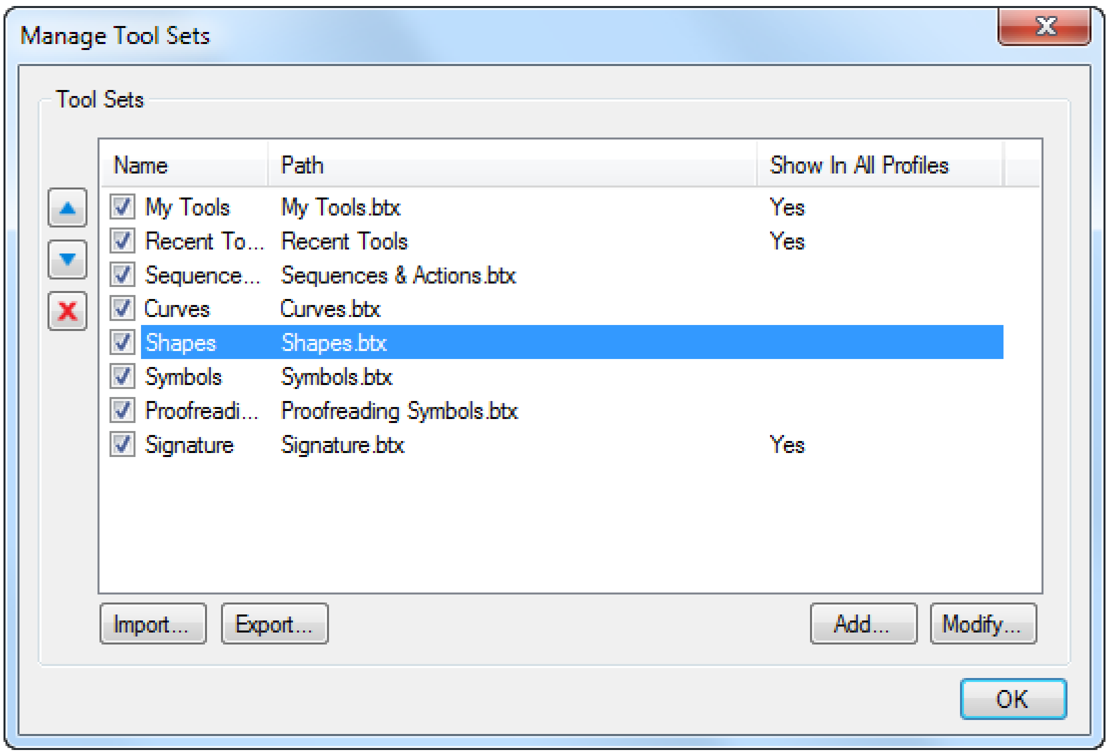


4. Select **Existing** and click ... . An **Open** dialog box appears.
5. Navigate to the desired BTX file and select it, then click **Open**.
6. To show the new tool set in the Tool Chest, select **Display**.
7. To show the new tool set in all Profiles, select **Show In All Profiles**.

8. To store the location to this tool set relative to the location of the current Profile, select **Relative Path**. Uncheck this option to save the full folder path to the tool set instead. For more information about Relative vs Full Paths, see Understanding Relative vs Full Paths.
9. Click **OK**.

Importing a Tool Set

1. Go to **View** > **Tabs** > **Tool Chest** or press ALT+X to show the **Tool Chest** tab.
2. Click **Manage Tool Sets**. The **Manage Tool Sets** dialog box appears.



3. Click **Import**. An **Open** dialog box appears.
4. Navigate to the desired BTX file and select it, then click **Open**.

Tool sets can also be imported automatically by double-clicking the BTX file in Windows Explorer or by dragging the BTX file into the Revu window.

Editing Shared Tool Sets

Tool sets that are shared across the network are locked by default. A locked file is normally read-only so as to prevent multiple users from making conflicting changes to a tool set.

A **Lock** icon in the **Tool Chest** tab indicates that a tool set is currently locked. Users with write permissions to the file can click the **Lock** icon to request to check out the tool set. If nobody else has the tool set checked out, the lock icon will change to a **Checked Out** icon, indicating that the user can now modify the tool set (for example, to add, delete, or edit tools within the tool set). Tool sets cannot be checked out by users who are offline.

The file which stores the information for the tool set is saved as <*the name of the tool set*>.btx. If you have configured your environment to point to a shared network location, any tool sets which you make read-only permanently have the file unlocked for you and no other user can unlock the file. If you unlock the particular tool set and forget to lock it again, as long as file is not read-only, then the tool set will be released and saved when you exit Revu. Saving your current Profile will save the state of any modified tool sets.

In the following image, **Symbols** is a local tool set, **Action** is on the network and locked, and **Custom Shapes** is on the network and is not locked.

STAMPS

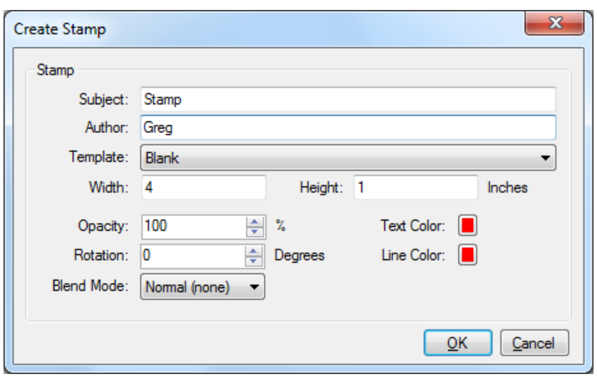
Editing Stamps

The Stamp tool is used to add "rubber stamp" comments on documents. For example, a text stamp can be used to indicate that a generated PDF is "DRAFT," "FOR REVIEW," and so on. Revu comes preloaded with some common stamps, which you can modify if desired or you can create your own.

- Creating a New PDF Stamp
- Editing an Existing Stamp
- Editing a PDF Stamp
  - Creating the Stamp Contents
  - Adding Dynamic Text
- Editing the Stamp Properties
- Importing a Stamp
- Deleting a Stamp
- Editing a .brx Stamp

Creating a New PDF Stamp

1. Go to **Markup** > **Stamp** > **Create Stamp**. The **Create Stamp** dialog box appears.



2. Enter the **Subject** of the stamp. This is what will appear in the Stamps list and in the **Subject** column of the Markups list.
3. By default, your user name is entered as the **Author**. Change it, if desired.
4. Select a **Template**. The options are:
   - **Blank**: Nothing is added to the stamp.
   - **Text**: Adds text equal to that found in the Subject field to the stamp.
   - **Text with Border**: Adds ext equal to that found in the Subject field and a square border to the stamp.

- **Text with Date and Border**: Adds text equal to that found in the Subject field plus Date and Time fields and a square border to the stamp.
- **Text with Rounded Border**: Adds text equal to that found in the Subject field and a border with rounded corners to the stamp.

5. Enter the **Width** and **Height** (in inches) of the stamp.
6. Set any of the following Appearance properties, as desired:
   - **Opacity**: Sets the opacity of the stamp as a percent, where 100% is completely opaque and 0% is completely transparent.
   - **Rotation**: Sets the relative rotation of the stamp in degrees.
   - **Blend Mode**: Defines the method by which the color in the stamp blends with the underlying PDF content.
   - **Text Color**: Sets the default text color of the stamp.
   - **Line Color**: Sets the default line color of the stamp.
7. Click **OK** and the stamp will open in edit mode. Continue with Editing a PDF Stamp below.

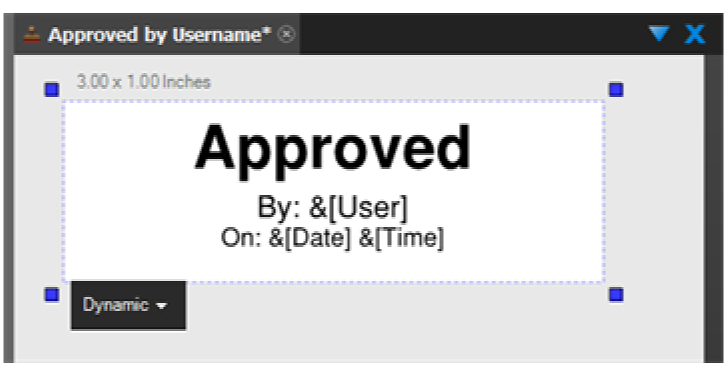
Editing an Existing Stamp

To open an existing PDF stamp in edit mode:

1. Go to **Markup** > **Stamp** and click **Edit** to the right of the desired stamp.
   - Alternatively, right-click a stamp that has been placed on a PDF and select **Properties**, then click **Modify** on the Properties tab.
2. The PDF stamp opens on a separate tab in Revu. Continue with Editing a PDF Stamp below.

See Editing a .brx Stamp for legacy ,brx format stamps.

Editing a PDF Stamp



There are a few things that you will see in a stamp that you will not see when editing a regular PDF.

- A stamp icon appears before the stamp name on the document tab.
- The width and height of the stamp is shown in the upper left corner of the stamp.
- A dashed blue line shows the boundary of the stamp on the page. The boundary can be resized by moving the square blue handles.

Creating the Stamp Contents

Use the Markup tools the same way that you would use them in any other PDF to create the content of the stamp.

Adding Dynamic Text

Dynamic text can be added to the stamp. Dynamic text is automatically updated when the stamp is placed in a PDF. For example, a dynamic Date field would automatically update with the current date when the stamp is placed. To place dynamic text:

1. Add a new Text Box or double-click an existing one. A **Dynamic** menu automatically appears below the Text Box.
2. Select the desired dynamic text type from the **Dynamic** menu.
    - Repeat this step to add multiple dynamic text fields in the same Text Box.
    - The dynamic text types are the following:

      File and user information:

        - **User**: The name of the current user
        - **File**: The name of the PDF file that the stamp is added
        - **File without extension**: The name of the PDF file, without the .pdf file extension
        - **Path**: The name of the PDF file, plus the full path (drive and folder name) where the PDF is located. Ex: C:\Projects\Baker Project\Floorplan.pdf

      Date and time information:

        - **Date**: Current date with the format 01/31/2000
        - **Time**: Current time with the format 12:30:59 PM
        - **Day**: Day of the month with two digit format. Ex: 31
        - **Month (2 letter abbreviation)**: Month of year using a two digit format. Ex: 01
        - **Month (3 letter abbreviation)**: Month using three letters. Ex: Jan
        - **Month (full name)**: Month using full spelling, January

- **Year (2 digit)**: Year using two digits. Ex: 12
- **Year (4 digit)**: Year using four digits. Ex: 2012

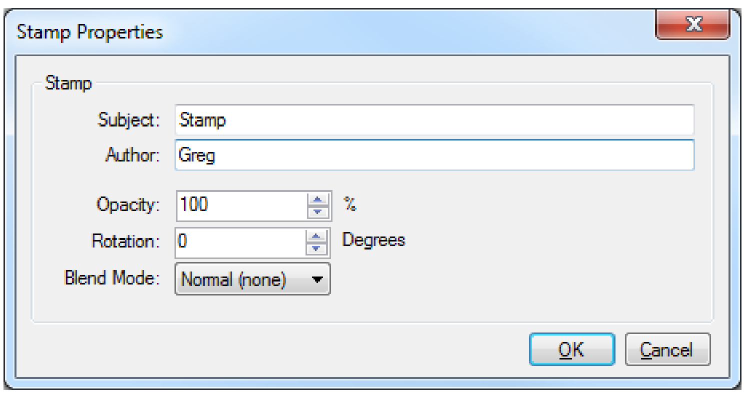
Time information:

- **Hour**, **Minutes** and **Seconds**: Each using two digits

Editing the Stamp Properties

1. Go to **Markup** > **Stamp** and click **Edit** to the right of the desired stamp.
   - Alternatively, right-click a stamp that has been placed on a PDF and select **Properties**, then click **Modify** on the Properties tab.
2. Click the stamp icon on the document tab and select **Stamp Properties**.

The **Stamp Properties** dialog box appears.



3. Change the desired settings and click **OK**.

Importing a Stamp

1. Go to **Markup** > **Stamp** > **Import Stamp**.
2. Select the PDF or .brx file or files that you want to import into the Stamps folder and click **Open**.

The files are copied into the Stamps folder and will appear in the Stamps list. You can also manually copy files into the Stamps folder.

Deleting a Stamp

Stamps are saved as individual PDF files in folders on a local or network drive. Deleting the appropriate PDF file from that folder will effectively delete the stamp. Stamps can also be deleted from within Revu.

Before deleting a stamp, ensure that you have the necessary permissions to the folder in which it is saved. Also, stamps that are currently open for editing cannot be deleted.

To delete a stamp:

1. Place the desired stamp on a PDF (create a blank one for this purpose if necessary).
2. Right-click the stamp and select **Properties** to open the Stamp's Properties tab.
3. In the **Appearance** section of the **Properties** tab, click **Delete**.

Editing a .brx Stamp

The legacy .brx stamp format is still supported and .brx stamps can be created and edited using the Stamp Editor.

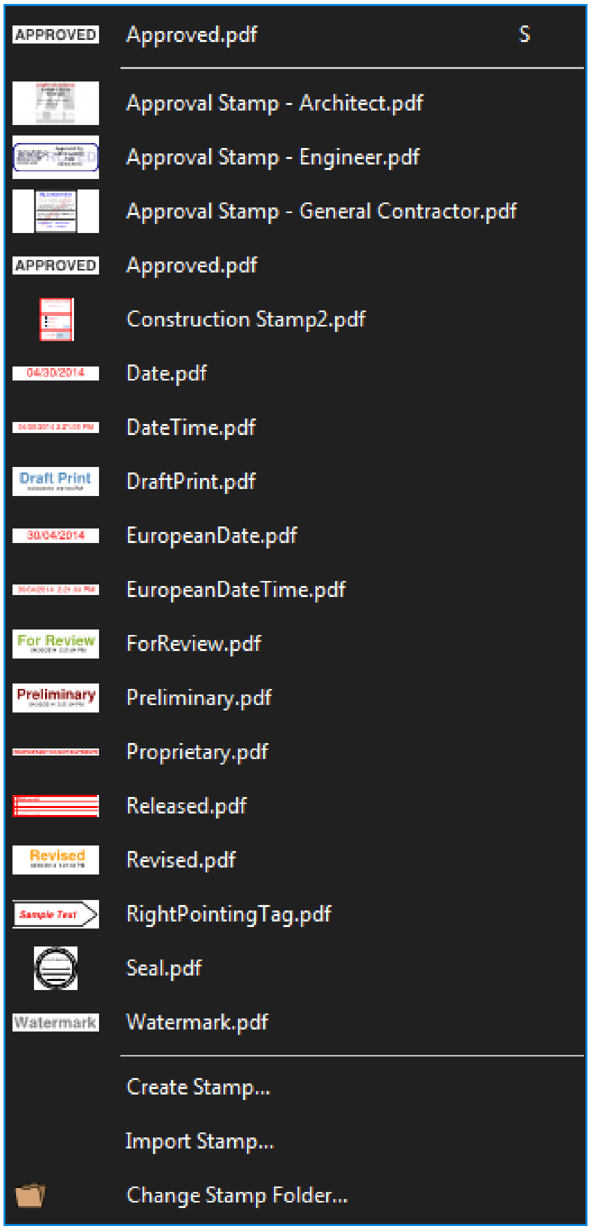
1. Right-click a .brx stamp that has been placed on a PDF and select **Properties**. The stamp's **Properties** tab opens.
2. Click **Modify** on the **Properties** tab. The .brx stamp opens in the Stamp Editor. Refer to the Help guide native to the Stamp Editor for more information about using it.

Stamp Tool

Use the Stamp Tool to add "rubber stamp" comments on the drawing. A text stamp can be used to indicate that a generated PDF is "DRAFT," "FOR REVIEW," and so on. Stamps are placed on a PDF as a markup and, as such, have editable appearance properties and show up on the Markups list.

Placing a Stamp

1. Go to **Markup** > **Stamp** and select the desired stamp.



2. Click the PDF to place the stamp.

The Default Stamp

The topmost stamp in the Stamp menu is the current default stamp. The most recently used stamp is usually the current default.

To place the default stamp:

1. Go to **Markup** > **Stamp** and select it from the top of the menu or press S on the keyboard.
2. Click the PDF.

To make an different stamp the default:

1. Place the desired stamp on a PDF (create a blank one for this purpose if necessary).
2. Right-click it and select **Set as Default.**
    - Alternatively, select any the stamp that has been placed on a PDF, then go to the Properties tab, select the desired stamp from the **Stamp Selection** list and click **Set as Default**.

This will be the default until another stamp is used.

Creating and Editing Stamps

See Editing Stamps for more information.

Stamp Folders

Stamps are saved to local or network drives as individual files. This can be used to organize large collections of stamps, making it easier to find a needed stamp.

Revu lists the stamps found in a selected folder. To change the current folder, go to **Markup** > **Stamp** > **Change Stamp Folder** and select the desired folder. The stamps found in it will be automatically shown in the Stamp menu.

The Stamp folder can also be changed from the **Properties** tab (see Appearance Properties below).

Since stamps tend to be uniform across an organization, it is often desirable to store them in a centrally located network folder (or even a set of folders). When doing this, give all users at your work location access to the network folder(s) and have them set their Stamps folders accordingly. As new stamps are added, they will become available on all users' computers.

Attaching a Note to a Stamp Markup

You can attach a note to nearly any markup that does not have a text box of its own. Simply double-click the markup to open the Note pop-up window. Notes attached to markups are functionally similar to the Note Tool.

Adding an Action to a Stamp Markup

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Stamp Markup

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

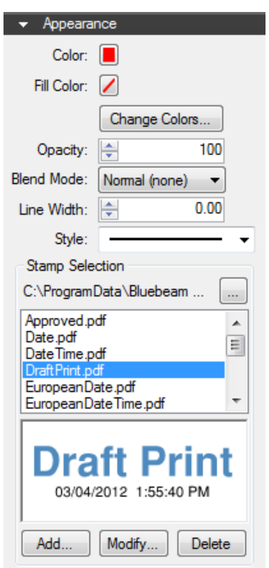
To **resize the markup**, click and drag the appropriate yellow handle.

Changing a Stamp Markup's Appearance

The appearance of a Stamp markup is configurable, including its border and fill color, opacity, line width and style, and its blend mode.

To change the appearance of a Stamp markup, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the color of the stamp's border.

Fill Color: Sets the background color of the stamp.

Change Colors: Launches the Color Processing dialog box to change the stamp colors.

Opacity: Sets the opacity of the stamp as a percent, where 100% is completely opaque and 0% is completely transparent.

Blend Mode: Defines the method by which the color in the stamp blends with the underlying PDF content.

Line Width: Sets the thickness (in points) of the stamp's border.

Style: Determines the pattern of the stamp's border.

Stamp Selection: Shows the path to the current Stamps folder in the first field followed by a list of the stamps found within it in the list box below. To change to a different folder, click ... and set the new folder.

Add: Opens the Create Stamp dialog box to start the stamp creation process. See Creating a New PDF Stamp for more information about creating PDF stamps.

Modify: Opens the stamp so it can be edited.

Delete: Permanently deletes the stamp from the Stamps folder.

Markups List

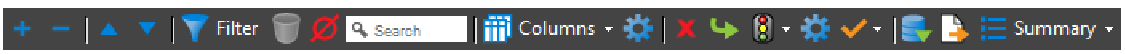
Markups List

The Markups list automatically tracks markups placed on a PDF, including author, date, color, and comments associated with each markup. By default it is found in the bottom panel. Go to **View** > **Tabs** > **Markups** or press ALT+L to show the **Markups list** if it is hidden.

- Markups List Toolbar
- Markups List
- Columns Menu
- Context Menu

Markups List Toolbar

The **Markups list** toolbar contains tools for organizing, processing, importing, and exporting data.



Expand All and **Collapse All**: Expands or collapses the entire list.

Previous and **Next**: Moves to the previous or next markup in the list.

Filter and **Clear Filters**: Toggles column filters on and off and clears previously applied filters.

Hide Markups: Hides all markups in the current PDF file. Markups will not be shown or printed when this mode is enabled. This mode is temporary and will be reset the next time Revu is started.

Search: Filters the Markups list based on the text entered in the field.

Columns: Selects which **columns** are shown in the Markups list.

Manage Columns: Launches the **Manage Columns** dialog box to change the display order and add, remove and create Custom Columns. Columns can also be reordered by dragging and dropping column headers.

Delete: Deletes a selected reply from the Markups list or a selected markup from both the PDF and the list.

Reply: Replies to the selected markup. Replies appear on a new indented row below the markup in question.

Status: Sets the status of the markups. The default statuses are **Accepted**, **Rejected**, **Completed**, **Cancelled** and **None**.Custom states can be created.

Manage Status: Creates and manages custom states.

Checkmark: Checks or unchecks the checkbox associated with the selected markup. Also provides a command to clear all checkboxes.

Import: Takes the markups from a PDF or an XML file and includes them in the active PDF (this is useful for incorporating and reviewing markups or feedback from multiple sources). FDF files containing annotations generated from other PDF applications may also be imported.

Export: Exports all markups to an XML file. The XML file can be imported into another PDF so that the markups will be displayed in the target PDF. The XML file can also be imported into Excel. Markups can also be exported to the FDF format for interoperability with other PDF applications.

Summary: Publishes a summary report of all the markups in a PDF. A PDF Summary can be saved as a separate PDF or appended to the end of the current PDF. It is also possible to export a Summary as CSV or XML data for use in Excel or other programs.

Markups List

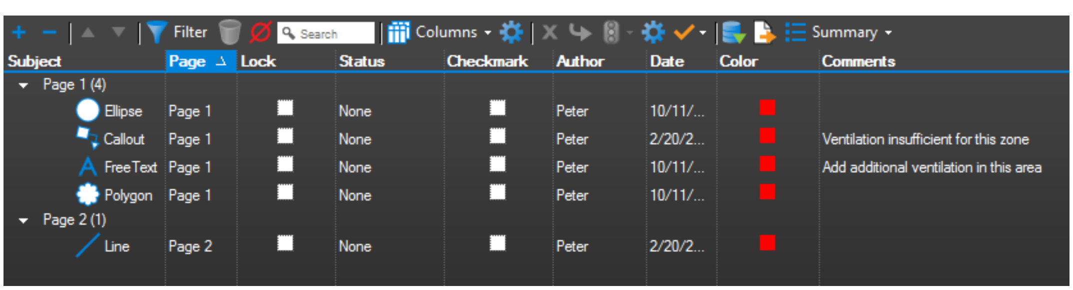
The Markups list is formatted as a table with each row representing a markup that has been added to the active PDF and each columns showing a particular piece of information about the markup.

As a row is selected, the view of the PDF in the workspace will jump to the location of the associated markup. This makes it easy to use the Markups list to step through the markups in PDF using either the **Previous** and **Next** buttons or the UP ARROW and DOWN ARROW keys.

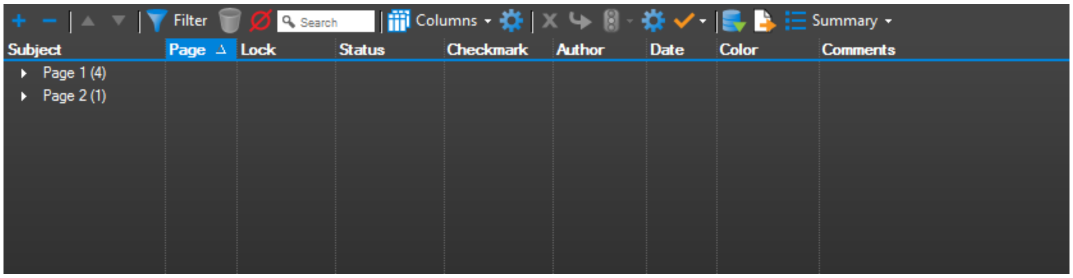
To sort by any column, click the desired column header. Click again to reverse the sort order. When markups are sorted by column, they are collected under section headings found in the **Subject** column. Each section has a toggle triangle; click it to expand or collapse the section.

The following examples show an expanded, collapsed, and partially collapsed list sorted by Page number:

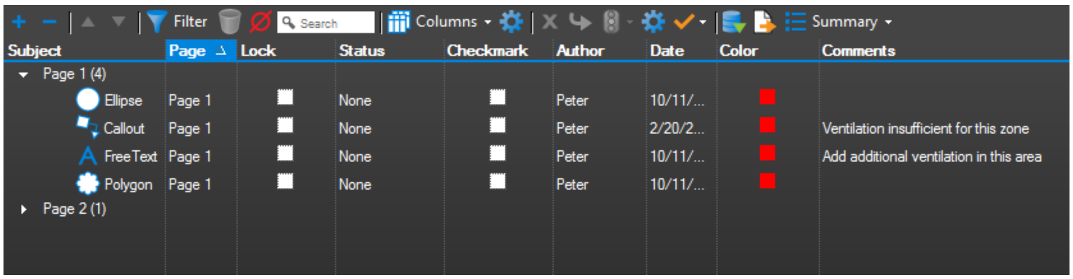
Expanded List



Collapsed List



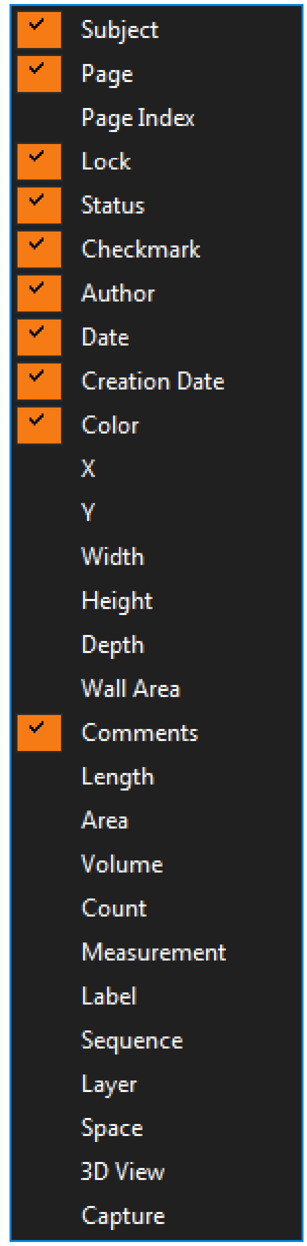
Partially Collapsed List



Columns Menu

The **Columns** menu allows you to toggle various columns on and off. Click this menu to show a list of available columns: checked columns are currently shown in the Markups list and unchecked columns are hidden. Data is still stored for hidden columns and columns can be hidden or shown at any time. Simply select a column from the Columns menu to hide or show it.

The available default columns are:



Subject: Shows both an icon and text that indicate the type of markup used on the PDF. This text can be changed in the **Subject** field in the **Properties** tab, or by double-clicking on the Subject text in the Markups list.

Page: Shows the page of the PDF on which the markup is located.

Page Index: Shows a numeric value indicating on which page the markup or measurement resides. Page Index is a useful column to use for sorting when exporting to spreadsheet programs.

Lock: Shows whether the markup is locked for editing or not. If locked, a appears in the box, and the markup cannot be moved or changed, though some functions, such as changing the **Status** or entering a **Reply**, are still permitted. If unlocked, the box is clear and the markup can be edited. Click to toggle a lock on or off.

Status: Shows the current status of the markup. Use the **Status** menu in the toolbar to set or change a status.

Checkmark: A simple checkbox that enables the Markups list to be used as a basic checklist. Click to toggle a checkmark on or off.

Author: Indicates the person (identified by username) who created the markup. Double-click this field to edit an author's name. To change your username, go to General Preferences and enter the desired name in the **User** field.

Date: Shows the date and time the markup was last modified, based on the system time.

Creation Date: Shows the date and time the markup was created, based on the system time.

Color: Shows the line color used for the markup.

X and **Y**: Shows the coordinates on the PDF page where the markup is located, counted from the lower left.

Width, **Height**, and **Depth**: Shows the size of the markup.

Wall Area: Shows the total Wall Area for Area or Perimeter markups.

Comments: Shows the comments from the **General** section of the **Properties** tab for this markup. Double-click in this field to change the comment associated with the markup.

Length, **Area**, **Volume**, **Count** and **Measurement**: Each shows values associated with Measurement markups.

Label: Shows the label associated with the markup. The label can be changed in the **General** section of the **Properties** tab. For measurement markups, it is common to use the Label field to specify the type of material that's being measured, such as "Tile 1" or "Carpet 3."

Sequence: Records the numerical value associated with a Sequence markup.

Layer: Shows the layer that contains the markup.

Space: Shows the Space that contains the markup.

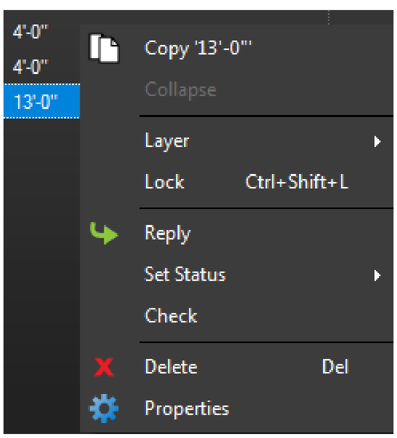
3D View: Shows the 3D view that contains the markup. Click to jump to that view in the 3D window.

Capture: Shows whether a markup has embedded images or videos. If embedded images or videos are present, a appears in this column; double-click this icon to preview the embedded media.

Context Menu

Right-click on any field in the Markups list to call up a context menu for performing functions on that markup.

Several of the commands available on the context menu are the same as those found on the toolbar (as described above). There are some commands found here that are not available in the toolbar, however:



Copy stores the contents of the specific cell that was right-clicked onto the clipboard. This information can then be pasted elsewhere in Revu or another Windows application.

Layer is used to assign a markup to a layer on the PDF. If a markup that is associated with a layer is flattened, it is automatically flattened on that layer.

Lock prevents users from altering the markup on the PDF. Certain changes to the Markups list for the markup can still be made, however (changing the **Status** or entering a **Reply**, for example).

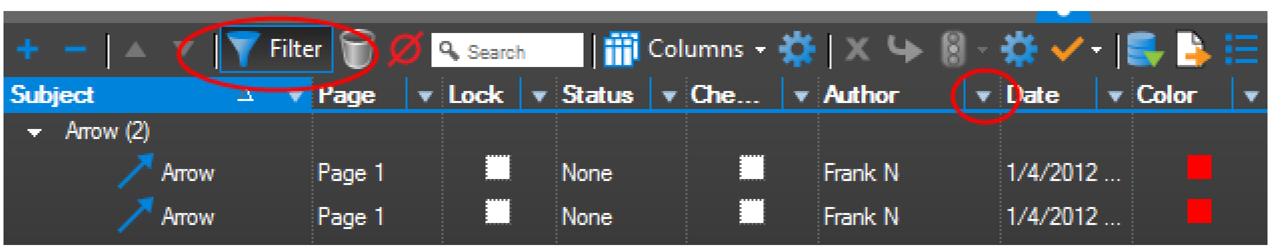
Using and Creating Filters

Filters provide an efficient mechanism for working with annotations on a PDF. In a production environment, many people will most likely place many markups on any given PDF. A PDF can quickly appear cluttered with many overlapping markups. Filters provide a way of organizing, identifying, and integrating input from many people. This section covers working with filters and creating custom filters.

Using Filters

To filter by data in a column:

1. Go to **View** > **Tabs** > **Markups** or press ALT+L to show the **Markups list**.
2. On the **Markups list** toolbar, click **Filter**. A triangle icon appears next to each column heading in the Markups list.

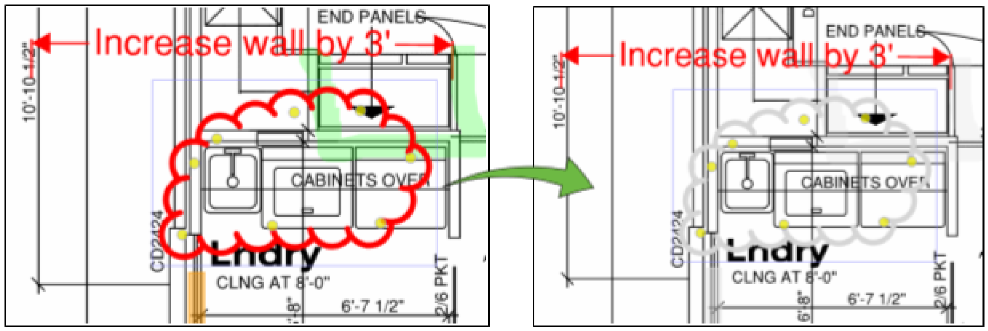


3. Click the triangle icon associated with the desired column and select the value to filter by.
4. Repeat as desired to filter by other values.

Filtering has the following effects while the filters are in place:

- The Markups list shows only those markups that match the selected filters.
- The column headers of columns that are currently being used as filters are highlighted in orange.
- Markups on the PDF that do not match the selected filters are dimmed (as demonstrated below). The exact amount that filtered markups are dimmed is determined by the

Filtered Annotation Dim Percentage setting in the Markups Tap Preferences.

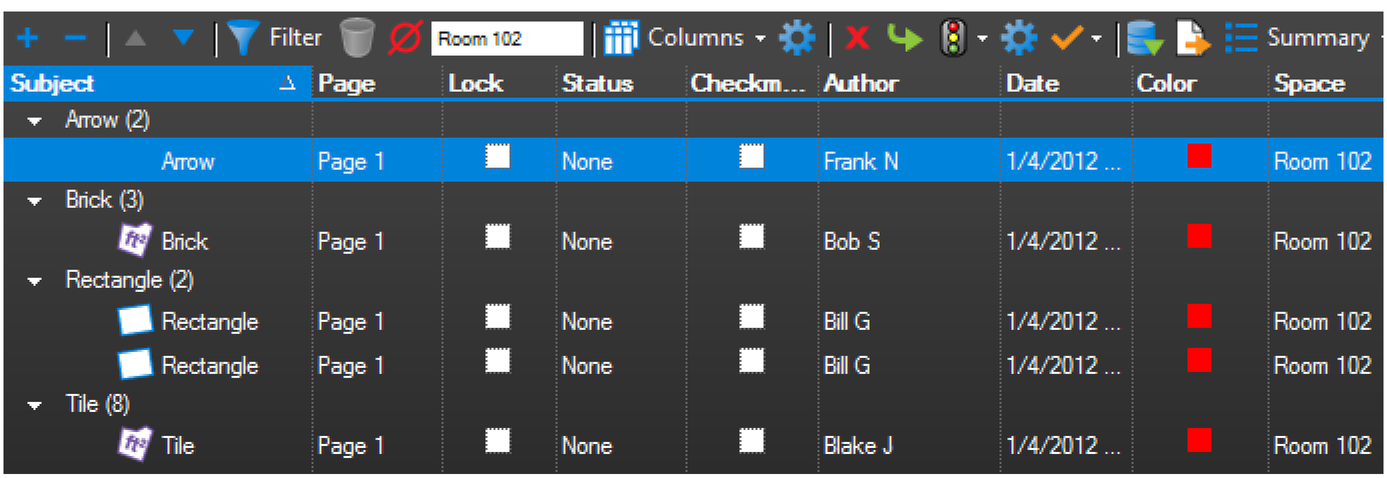


Using the Search Filter

It is also possible to filter by search term. This feature is especially helpful when the column you are filtering has a large number of entries.

To filter by search term:

1. Go to **View** > **Tabs** > **Markups** or press ALT+L to show the **Markups list**.
2. On the **Markups list** toolbar, click inside the **Search** field.
3. Enter the desired search term. The Markups list will be filtered down to only those markups that have the search term in at least one of the columns. Further, any markups that are filtered out will be dimmed on the PDF.



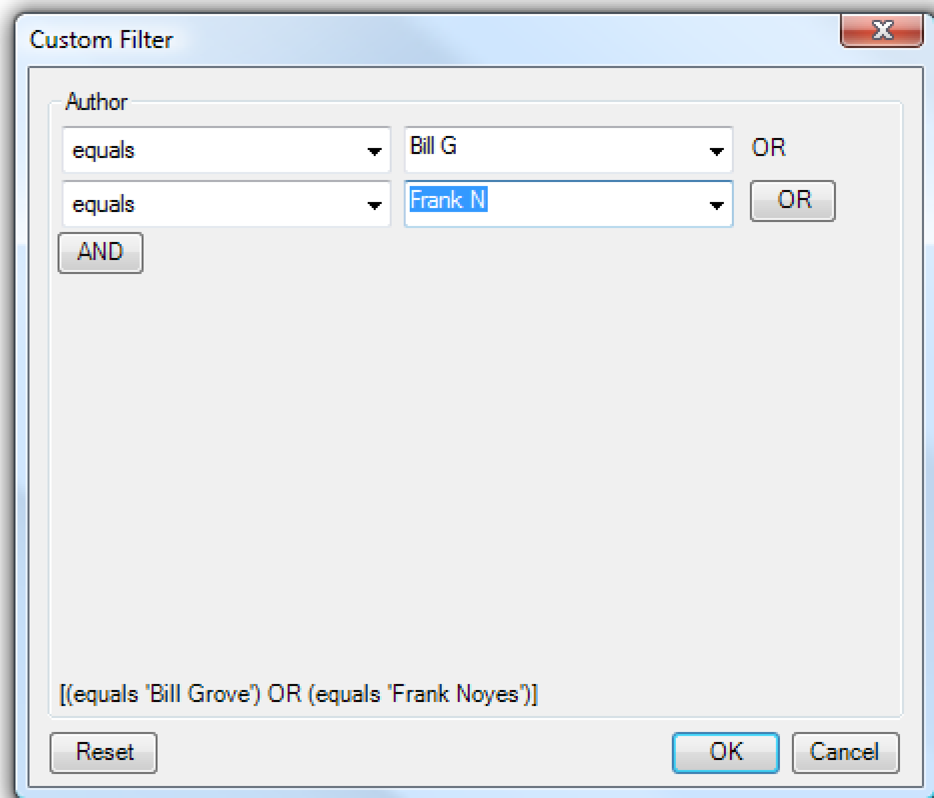
Creating a Custom Filter

Custom filters allow you to create a filter that includes more than one value in a column. For example, you can create a custom filter that will display markups created by two different Authors. A custom filter applies only to a single column, but each column can have its own custom filter defined and any number of custom filters can be used on different columns at once.

To define a custom filter:

1. Go to **View** > **Tabs** > **Markups** or press ALT+L to show the **Markups list**.
2. Click **Filter** on the **Markups list** toolbar to turn on filtering.
3. Click the triangle icon associated with the desired column and select **[Custom]**. The **Custom Filter** dialog box appears.
4. Choose from the options to create the desired filter and click **OK**.

In the following example, a custom filter is being defined to show markups that only Bill G or Frank N have made. Note that the boolean filter string is displayed across the bottom of the dialog box. Any number of **AND** and **OR** conditions may be created to filter the markups.



Removing Filters

To remove a filter from a single column, click the triangle next to the column header and select **[All]**.

To toggle off filtering without losing the filters you've set, click **Filter** on the **Markups list** toolbar.

To remove all filters, click **Remove Filters** in the **Markups list** toolbar.

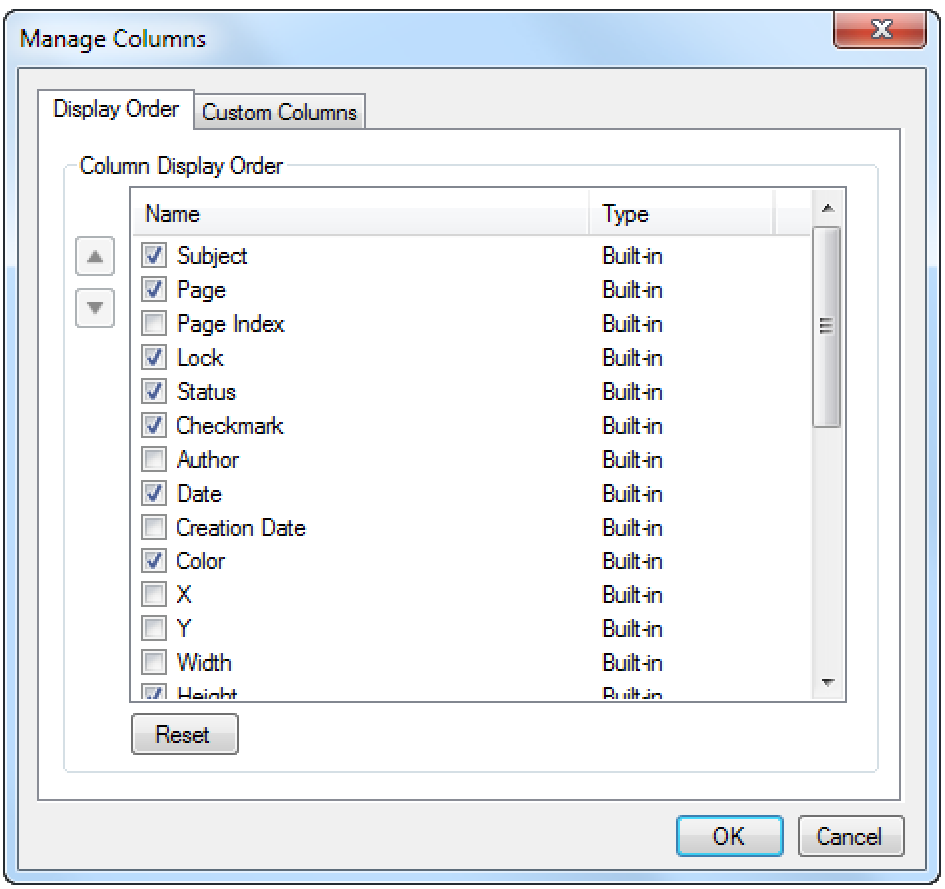
Managing and Creating Columns in the Markups List

The data displayed in the Markups list is highly customizable. Users have control over which columns are shown and in what order and can create custom columns, including columns that perform user-defined calculations.

- Changing the Columns Displayed and Columns Order
- Defining Custom Columns
- Managing Custom Columns

Changing the Columns Displayed and Column Order

1. On the **Markups list** toolbar, click **Manage Status**. The **Manage Status** dialog box appears.



2. Click the **Display Order** tab.
3. Check or uncheck columns, as desired. Checked columns are shown, unchecked columns are hidden.

4. Select a column on the and use the Up or Down button to move it into the desired position. Columns are shown in the order found here.

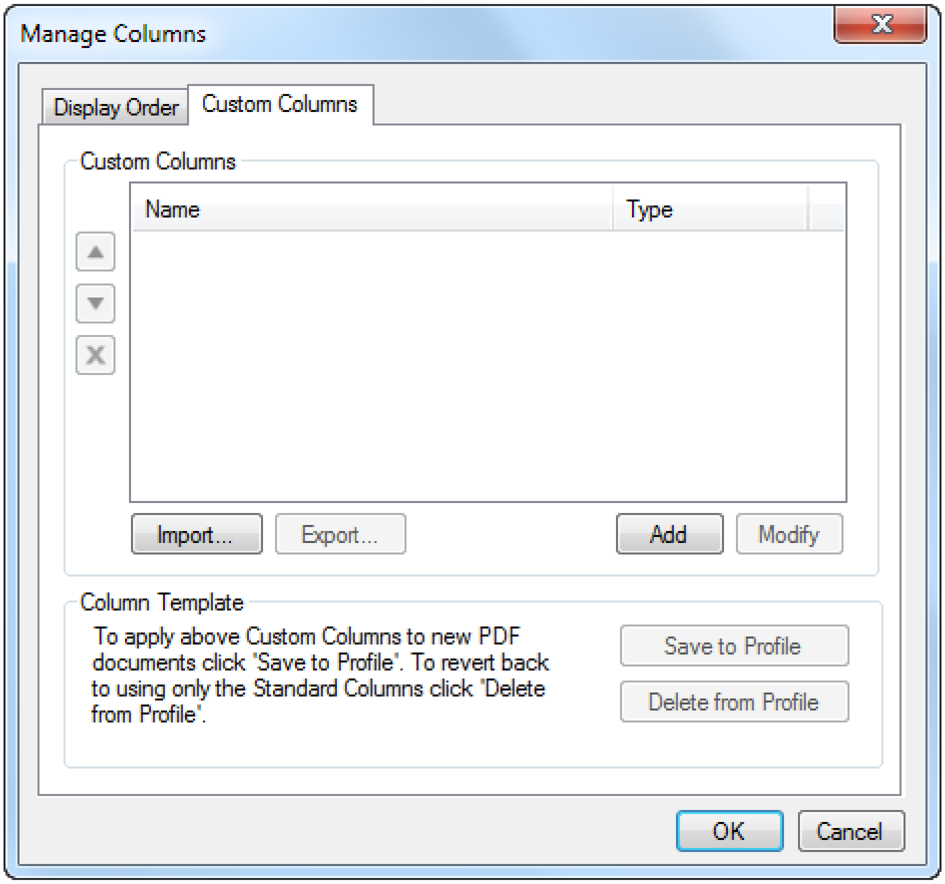
Defining Custom Columns

Six types of custom columns are supported.

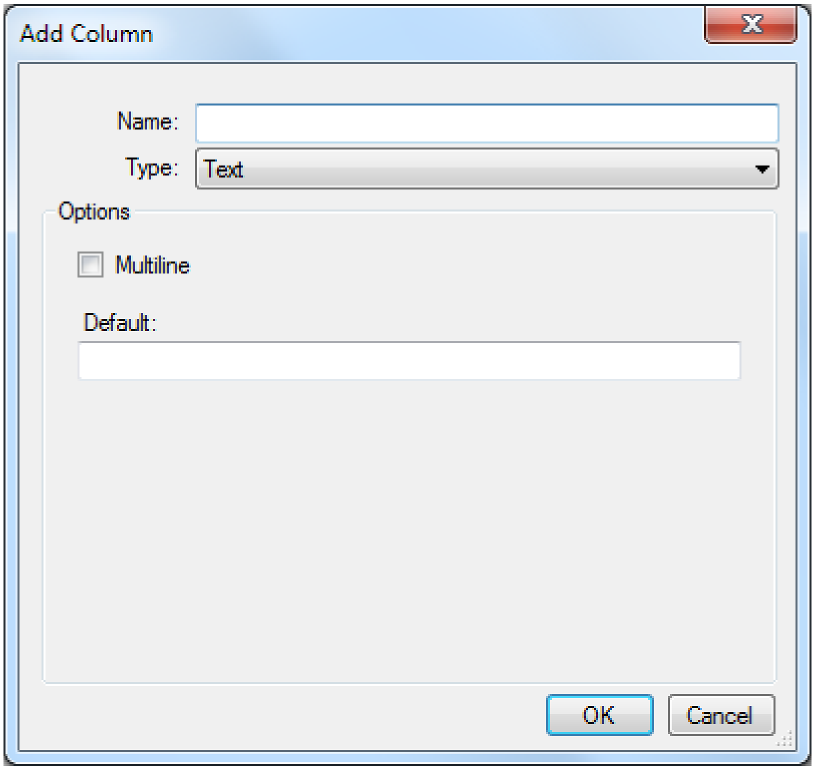
- Checkmark: Adds a check box column
- Choice: Defines a set of values that can be selected from a list
- Date: Adds a date-format column
- Formula: Defines a mathematical operation to perform on values from other columns in the Markups list
- Number: Defines a column with a numeric value
- Text: Defines a column with a text string

Checkmark

1. On the **Markups list** toolbar, click **Manage Status.** The **Manage Status** dialog box appears.
2. Select the **Custom Columns** tab. All custom columns are listed.



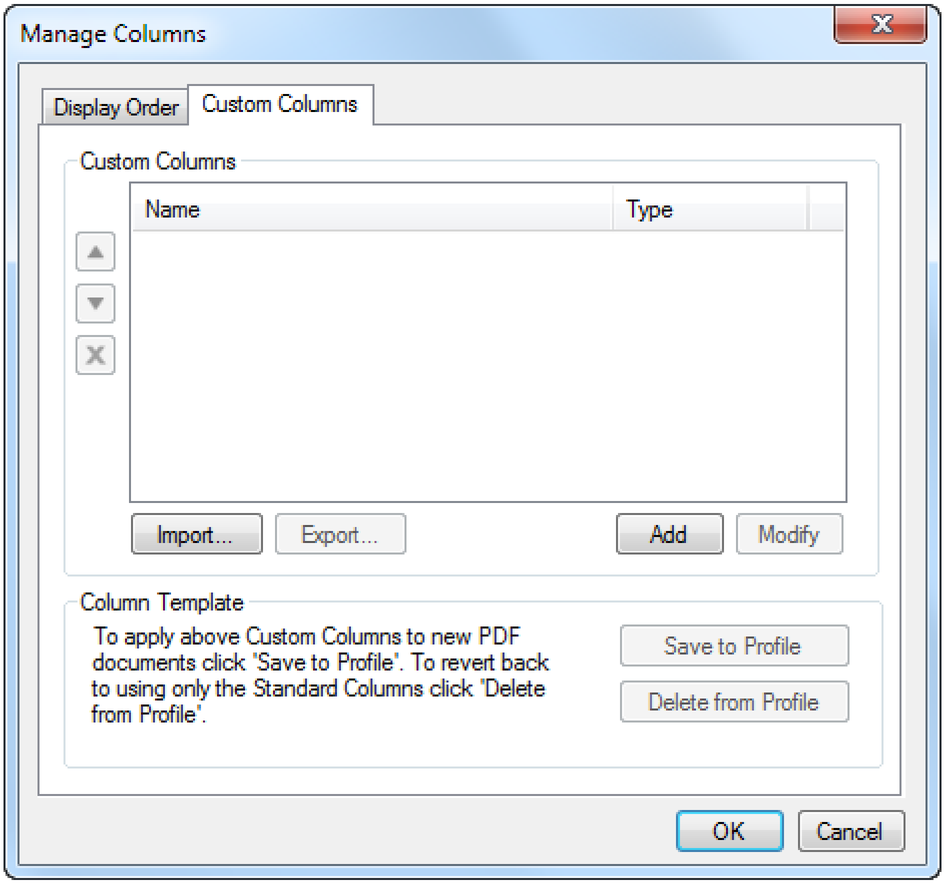
3. Click **Add**. The **Add Column** dialog box appears.



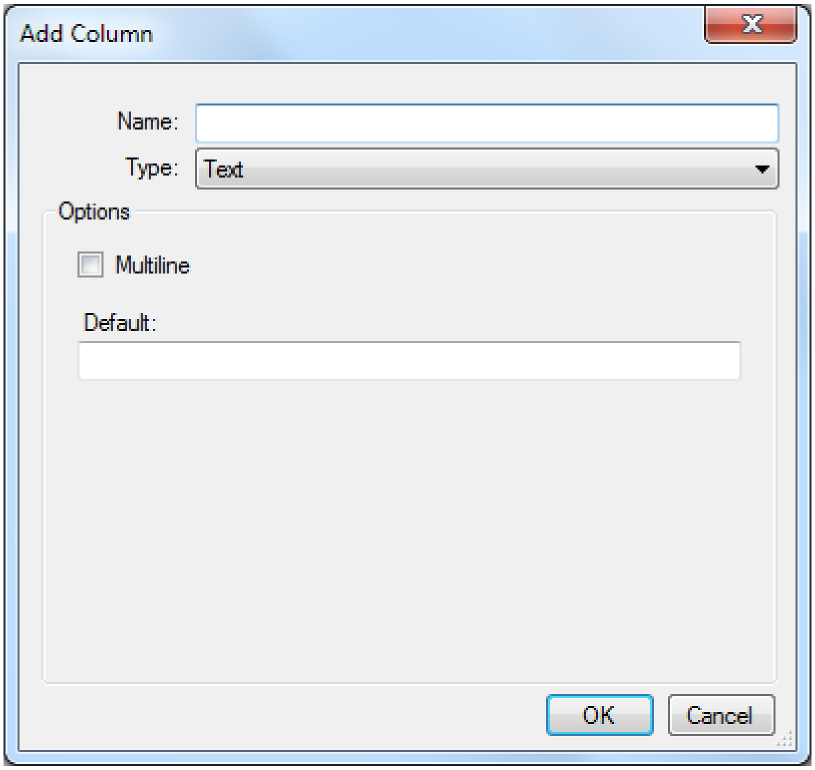
4. Enter a display name for the column in the **Name** field.
5. Select **Checkmark** from the **Type** list.
6. Set the **Default** value as **Unchecked** (default) or **Checked**, as desired.
7. Click **OK**.

Choice

1. On the **Markups list** toolbar, click **Manage Status**. The **Manage Status** dialog box appears.
2. Select the **Custom Columns** tab. All custom columns are listed.

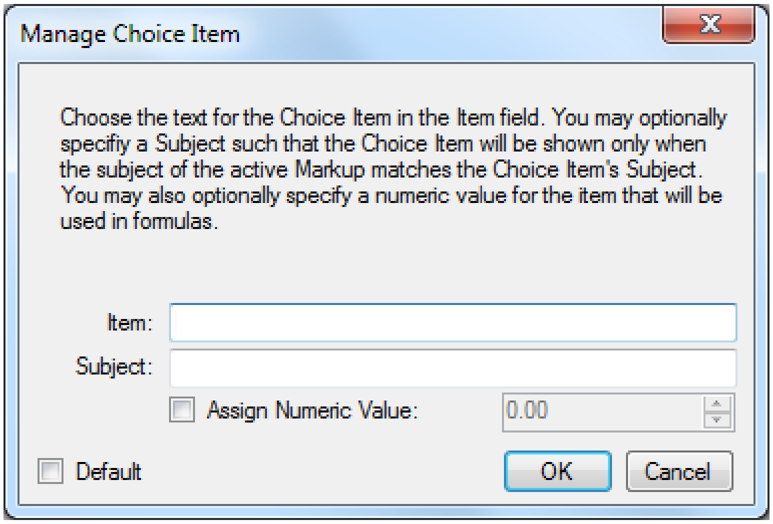


3. Click **Add**. The **Add Column** dialog box appears.



4. Enter a display name for the column in the **Name** field.
5. Select **Choice** from the **Type** list. All current choice items are listed in the **Options** list.
6. You can either import choice items from a CSV file or create and modify them manually:
   Importing choice items from a CSV file
   a. Click **Import**. An **Open** dialog box appears.
   b. Navigate to and select the desired CSV file, then click **Open**.
      - CSV data should be arranged in the following order:
        - Column A = The name of the item. This is the name that will appear in the list for selection in the **Markups list**. (Required)
        - Column B = The subject for the item. This links to the **Subject** property of a markup, allowing for selective filtering of the list based on the markup. (Optional)
        - Column C = Numeric value of the choice, if applicable. (Optional)
   c. To set one of the imported choice items as the default selection for the column, select it and click **Modify**, then check **Default**.

   Creating choice items manually
   a. Click **Add**. The **Manage Choice Item** dialog box appears.



b. Set the choice item's details:

- **Item** The name of the item. This is the name that will appear in the list for selection in the **Markups list.** (Required)
- **Subject** The subject for the item. This links to the **Subject** property of a markup, allowing for selective filtering of the list based on the markup. (Optional)
- To give the choice a numeric value (required if it is to be used in a formula), check the **Assign Numeric Value** box and enter the value in the number field to the right.
- If this choice should be the default selection for the column, check the **Default** box.

c. Click **OK.**

Modifying an existing choice item

a. Select the desired choice item and click Modify. The **Manage Choice Item** dialog box appears.

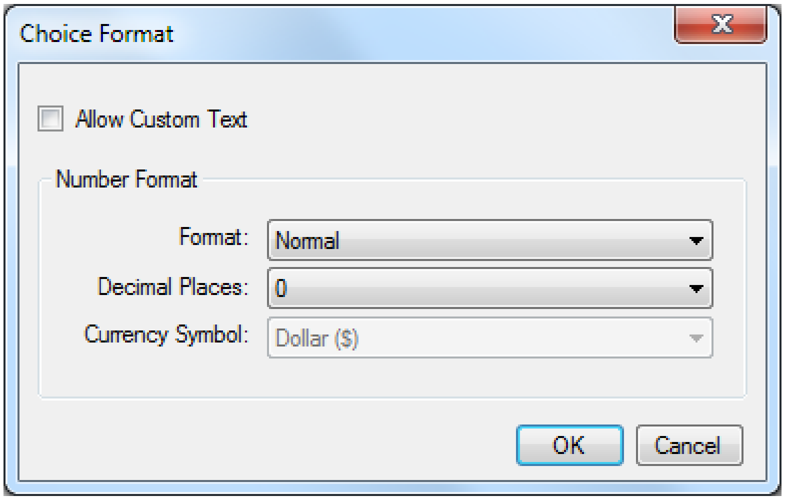
b. Change the choice item's details as desired:

- **Item** The name of the item. This is the name that will appear in the list for selection in the **Markups list.** (Required)
- **Subject** The subject for the item. This links to the **Subject** property of a markup, allowing for selective filtering of the list based on the markup. (Optional)
- To give the choice a numeric value (required if it is to be used in a formula), check the **Assign Numeric Value** box and enter the value in the number field to the right.

- If this choice should be the default selection for the column, check the **Default** box.

c. Click **OK**.

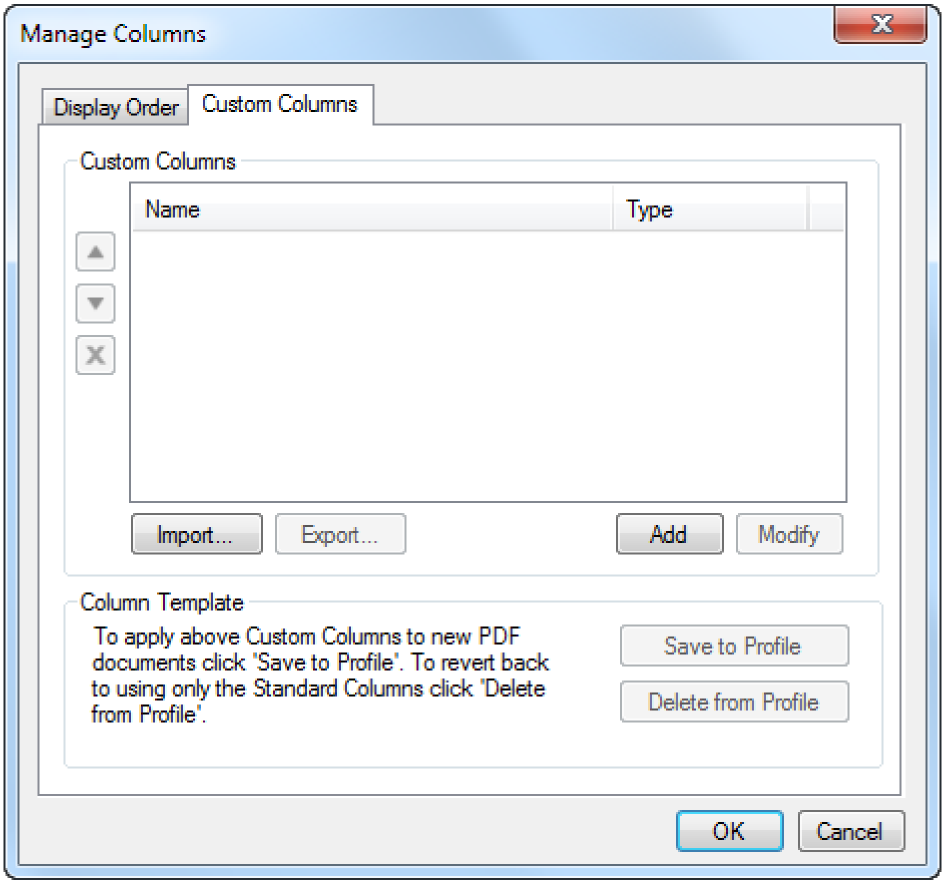
7. To format the choice items, click **Format**. The **Choice Format** dialog box appears.



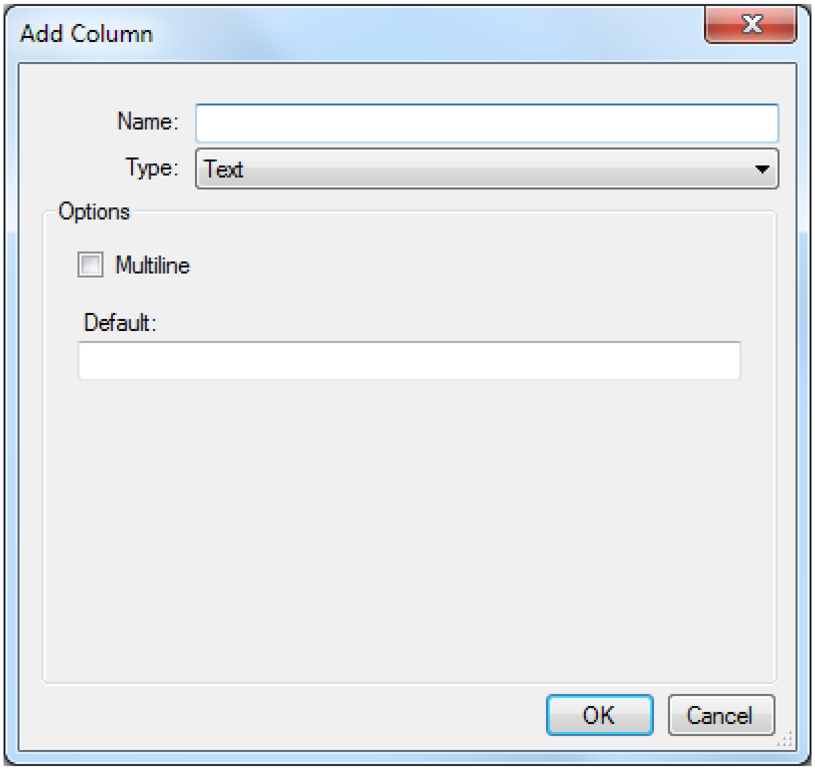
8. Set the formatting options as desired:
   - **Allow Custom Text**: When checked, users can select from choice items or manually enter custom text in the **Markups** list. When unchecked, only defined choice items can be selected.
   - **Format**: Defines the display of numbers in **Normal**, **Currency**, or **Percentage** mode.
   - **Decimal Places**: Defines the number of decimal places (between 0 and 8) of numeric values.
   - **Currency Symbol**: Defines the currency type (if **Currency** has been selected as the **Format**).
9. Click **OK**.

Date

1. On the **Markups list** toolbar, click **Manage Status**. The **Manage Status** dialog box appears.
2. Select the **Custom Columns** tab. All custom columns are listed.



3. Click **Add**. The **Add Column** dialog box appears.



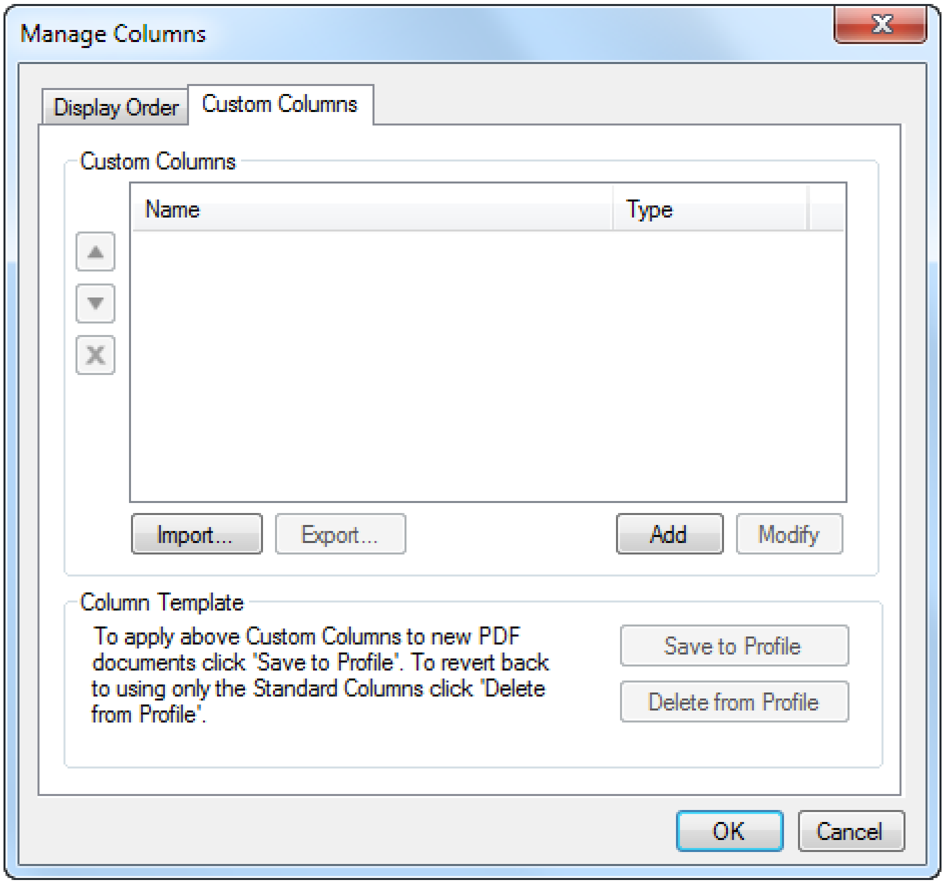
4. Enter a display name for the column in the **Name** field.
5. Select **Date** from the **Type** list.
6. Select a date format from the **Format** list.
7. Select a default value for the column from the **Default** list:
    - **None**: No date will be added when the markup is created
    - **Current** : The current date will be added by default when the markup is created
    - **Custom**: A specific, predefined date will be added when the markup is created.

      To define the custom date, enter it in the **Custom** field or click to select a date from the calendar.
8. Click **OK**.

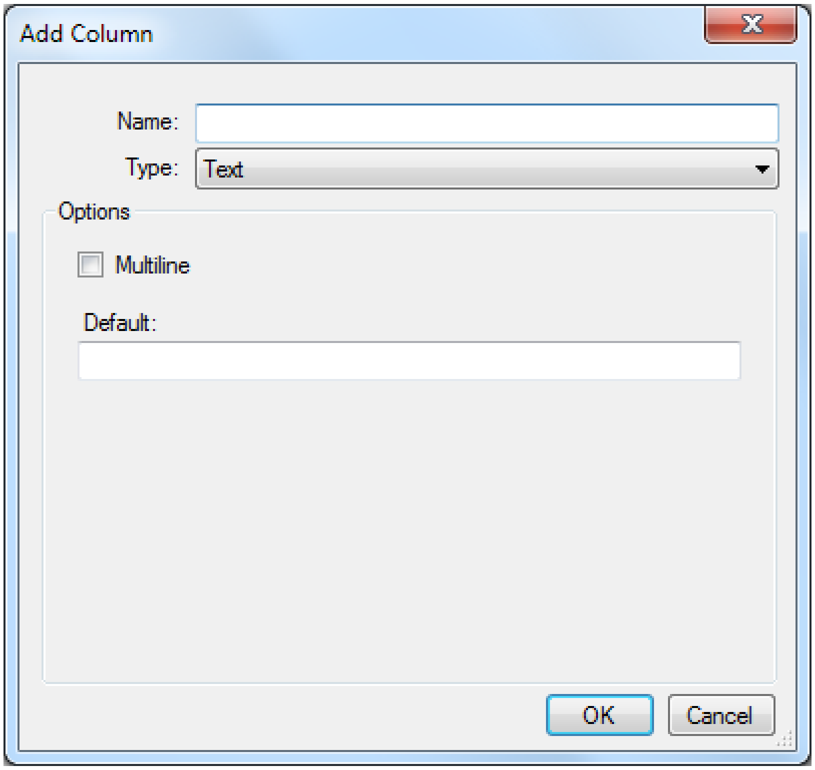
Formula

Both standard and custom columns can be used in formula.

1. On the **Markups list** toolbar, click **Manage Status**. The **Manage Status** dialog box appears.
2. Select the **Custom Columns** tab. All custom columns are listed.



3. Click **Add**. The **Add Column** dialog box appears.



4. Enter a display name for the column in the **Name** field.
5. Select **Formula** from the **Type** list.
6. Enter the formula in the **Expression** field. Formulae can consist of the following elements:
   - **Variables**: Includes column names like *Area*, *Count*, *Length*, *Measurement*[1], *Volume*, and so on. Any new custom columns created will be added to this list
   - **Constants**: Includes the value of *e*, value of *pi*, and so on.
   - **Functions**: Includes *acos*, *asin*, *atan*, *ceiling*, *cos*, *floor*, *ln*, *log*, *round*, *sin*, *sqrt*, and *tan*.
   - **Operators**: Includes:
     - Addition (+)
     - Subtraction (–)

[1] Measurement is a default column in that is important when defining formulas. The Measurement column contains only the numeric value of the primary measurement of a markup and does not contain the unit descriptor. The measure markups like Length, Width, and Area contain an unit descriptor like in, cm, or sq ft. This makes these columns more readable in the Markups list, but also makes them unusable in a formula. The Measurement column removes the unit so only the value remains. The Measurement column also contains the value no matter what type of measure markup was used. The Measurement column will automatically contain the value of a Length, Area, or Count.

- Multiplication (*)
- Division (/)
- Exponential (^)
- Modulus (%)
- Negation (–)

  When you start typing in the Expression field, a list of available Variables, Constants, Functions, and Operators appears. Select the desired elements, one at a time, to build your formula.

  You can also manually manipulate your formula, if necessary. For example, adding parentheses changes the order of operations, as in this formula: **(** [Price] – [Discount] **)** * [Quantity].

7. Select the display characteristics of the numerals from the **Format** list. The options are: **Normal**, **Currency**, or **Percentage**.
8. Select the number of decimal places (between 0 and 6) of numeric values from the **Decimal Places** list.
9. Select the currency type (if **Currency** has been selected as the **Format**) from the **Currency Symbol** list.
10. Check **Include In Totals** to include the result of the formula when calculating the section divider in the **Markups** list.
11. Click **OK**.

About the **Measurement** column in formulae:

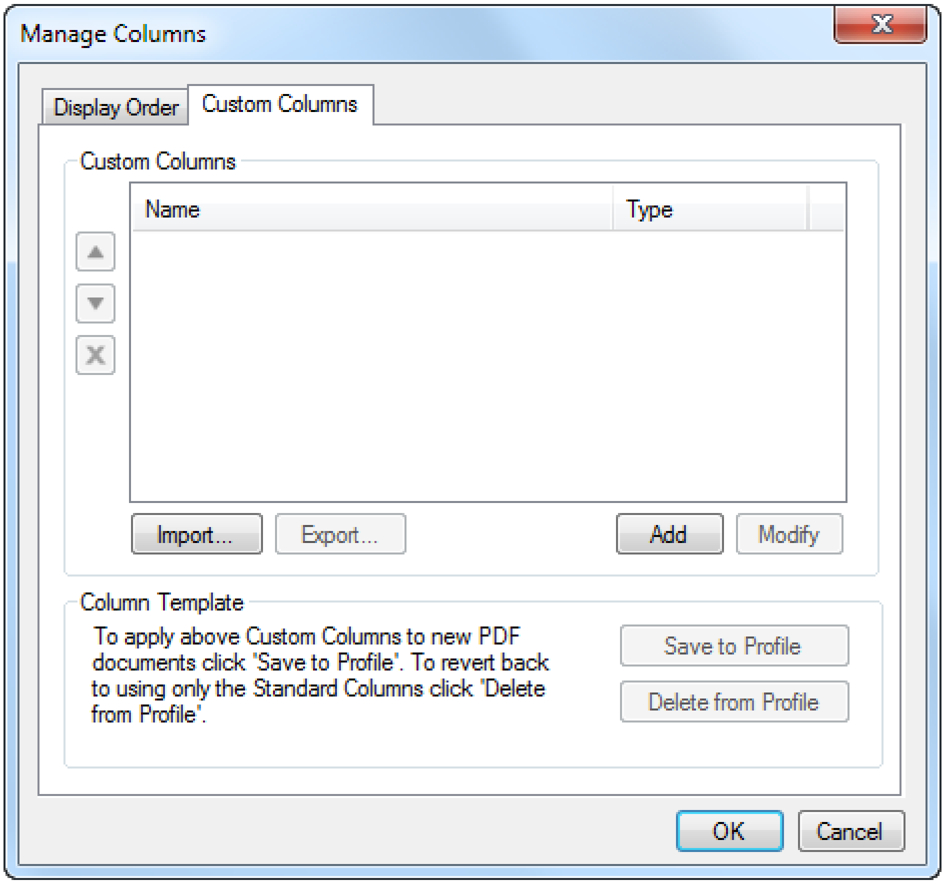
Measurement is a default column in Revu that is important when defining formulas. The **Measurement** column contains only the numeric value of the primary measurement of a markup and does not contain the unit descriptor.

The measure markups like **Length**, **Width**, and **Area** contain an unit descriptor like *in*, *cm*, or *sq ft*. This makes these columns more readable in the **Markups list**, but also makes them unusable in a formula. The **Measurement** column removes the unit so only the value remains.

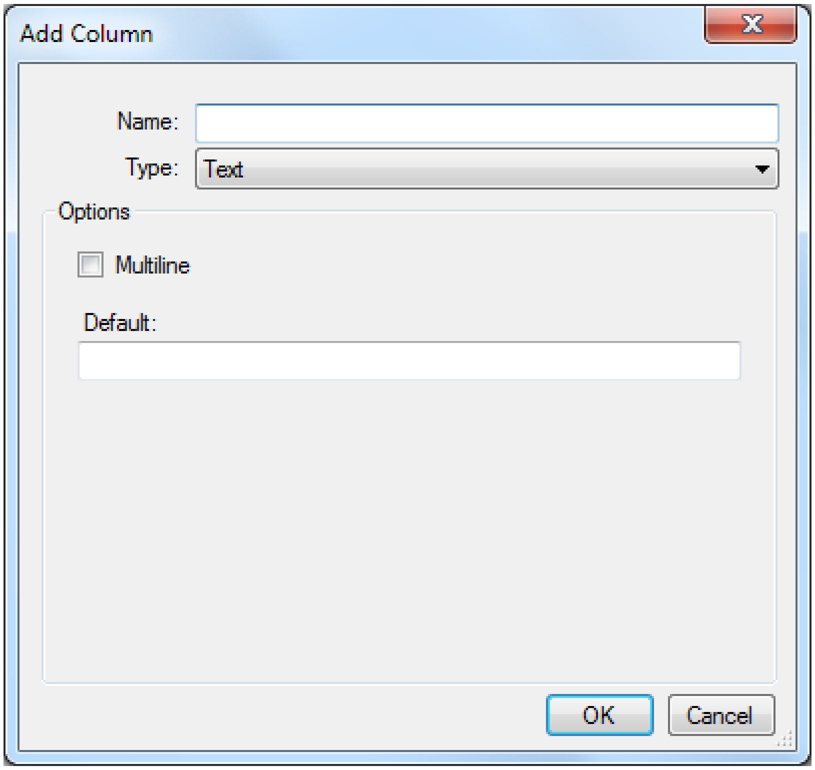
The **Measurement** column also contains the value no matter what type of measure markup was used. The **Measurement** column will automatically contain the value of a **Length**, **Area**, or **Count**.

Number

1. On the **Markups list** toolbar, click  **Manage Status.** The **Manage Status** dialog box appears.
2. Select the **Custom Columns** tab. All custom columns are listed.



3. Click **Add**. The **Add Column** dialog box appears.

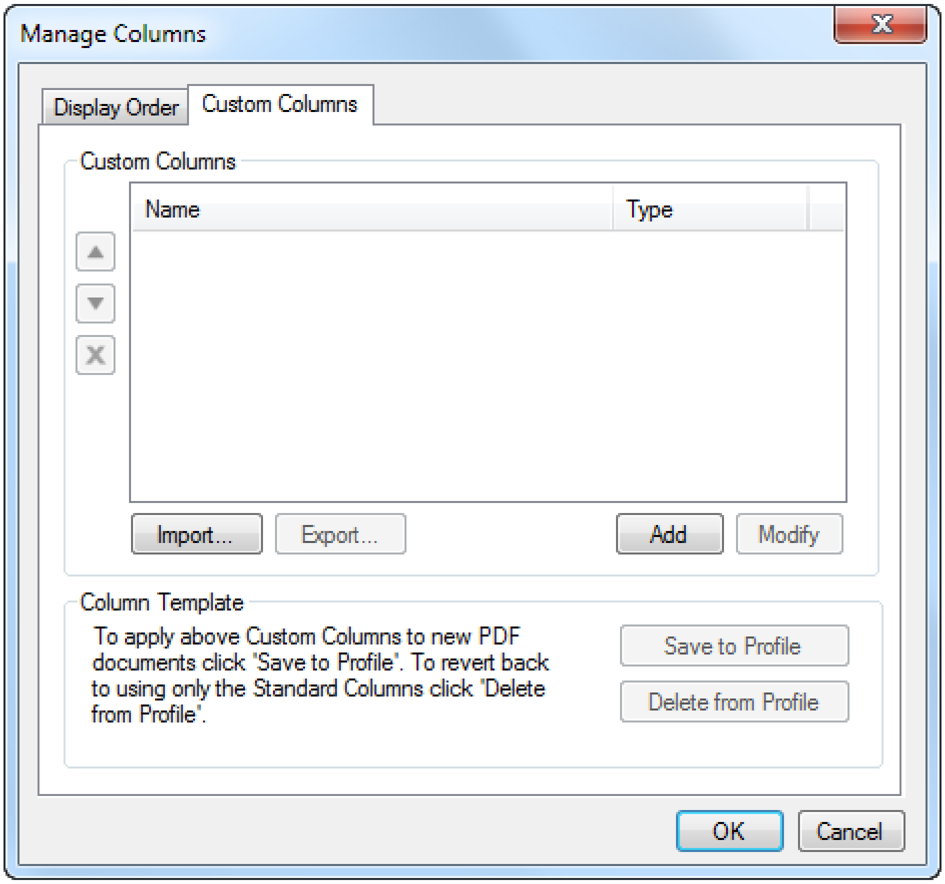


4. Enter a display name for the column in the **Name** field.
5. Select **Number** from the **Type** list.
6. Select the display characteristics of the numerals from the **Format** list. The options are: **Normal**, **Currency**, or **Percentage**.
7. Select the number of decimal places (between 0 and 6) of numeric values from the **Decimal Places** list.
8. Select the currency type (if **Currency** has been selected as the **Format**) from the **Currency Symbol** list.
9. Check **Include In Totals** to include the result of the formula when calculating the section divider in the **Markups** list.
10. Enter the minimum allowable value in the **Min** field. (Optional)
11. Enter the maximum allowable value in the **Max** field. (Optional)
12. Enter a default value in the **Default** field. (Optional)
13. Click **OK**.

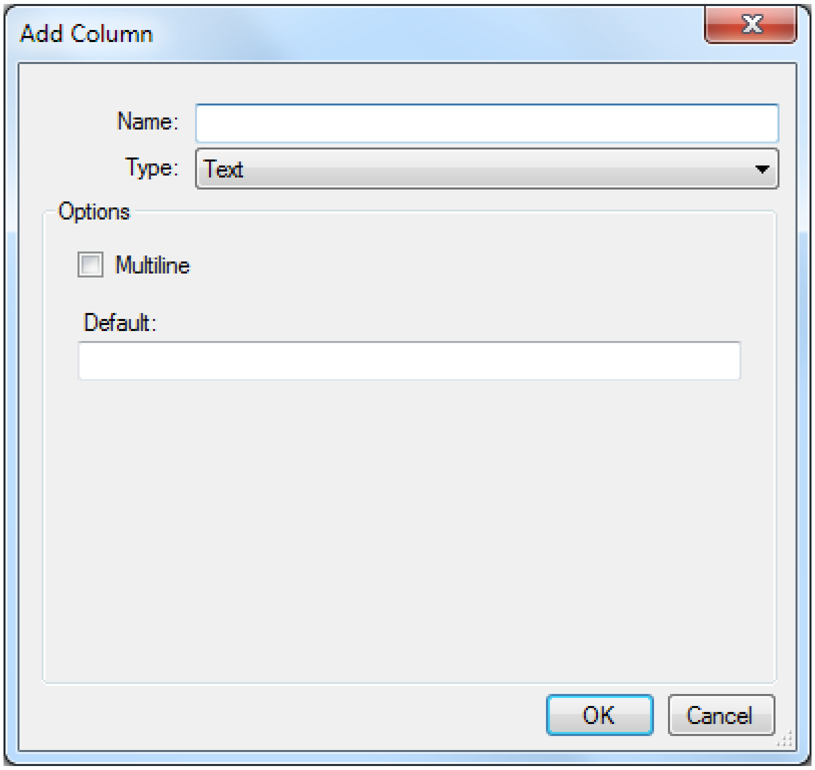
Text

1. On the **Markups list** toolbar, click  **Manage Status**. The **Manage Status** dialog box appears.

2. Select the **Custom Columns** tab. All custom columns are listed.



3. Click **Add**. The **Add Column** dialog box appears.



4. Enter a display name for the column in the **Name** field.
5. Select **Text** from the **Type** list.
6. To wrap text so that it appears on multiple lines if it is longer than the available space in the **Markups list**, check **Multiline**.
7. Enter default text to be added with every new markup in the **Default** field.
8. Click **OK**.

Managing Custom Columns

Reordering the List

Select a column name then click the **Up** or **Down** buttons to reorder custom columns.

Deleting a Custom Column

Select a column name then click **Delete** to delete it.

Automatically Adding Custom Columns to All Documents with the Column Template

Click the **Save to Profile** button to add the currently defined custom columns to all PDFs opened or created in Revu. The columns will not be added to the PDF until data is actually entered into one of the columns. The functionality behaves this way so that simply opening the

PDF will not require a save; a save is required only if data has been added into one of the newly added columns (or made some other change). Click the **Delete from Profile** button to remove the template from future PDFs.

Status in the Markups List

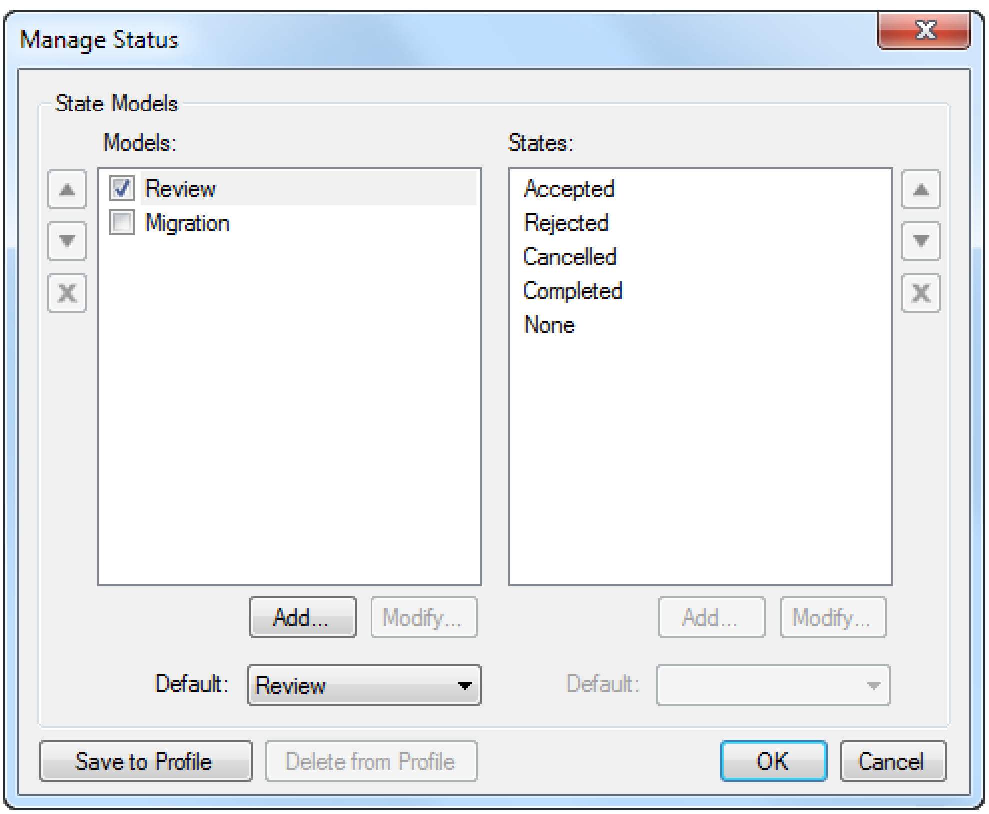
Revu users can set the status of any markup in the Markups list. Revu comes preloaded several common Review and Migration states and supports custom states to suit any workflow.

- Creating Custom States
- Modifying Existing States
- Applying a Status
- Advanced Status Operations

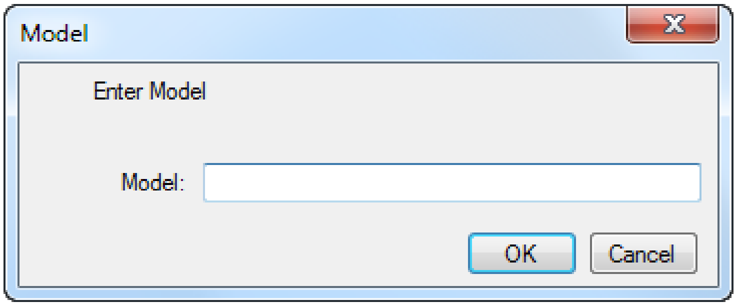
Creating Custom States

Revu comes preloaded with default models (Review and Migration) that cannot be altered. In order to create custom states, a custom model must be created first.

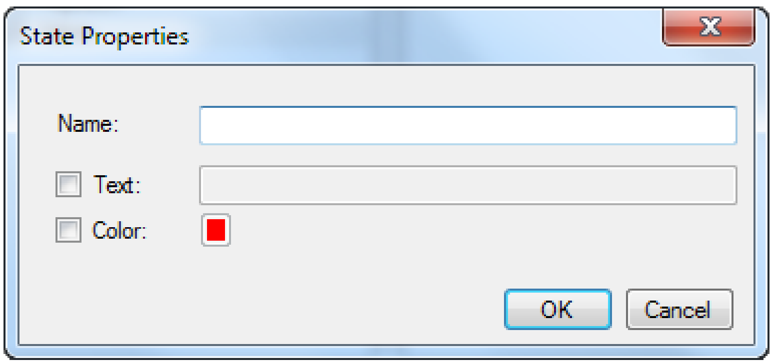
1. Go to **View** > **Tabs** > **Markups** or press ALT+L to show the **Markups list**.
2. On the **Markups list** toolbar, click **Manage Status**. The **Manage Status** dialog box appears.



3. Below the **Models** list, click **Add**. The **Model** dialog box appears.



4. Enter a name for the model and click **OK**.
5. Click the new model in the **Models** list to select it.
6. Below the **States** list, click **Add**. The **State Properties** dialog box appears.



7. Enter a name for the new status in the **Name** field.
8. To associate text with this status, check **Text** and enter it in the corresponding field. Whenever a markup that is grouped with a Text Box markup is set to this status, the text will automatically set to the value entered here.
9. To associate a color with this status, check **Color** and choose one by clicking the corresponding color box. Whenever a markup is set to this status, it will automatically change to this color.
10. Click **OK**.
11. Click **OK** to close the **Manage Status** dialog box. The custom model will now appear in the **Set Status** list as a submenu with its associated, custom statuses inside it.

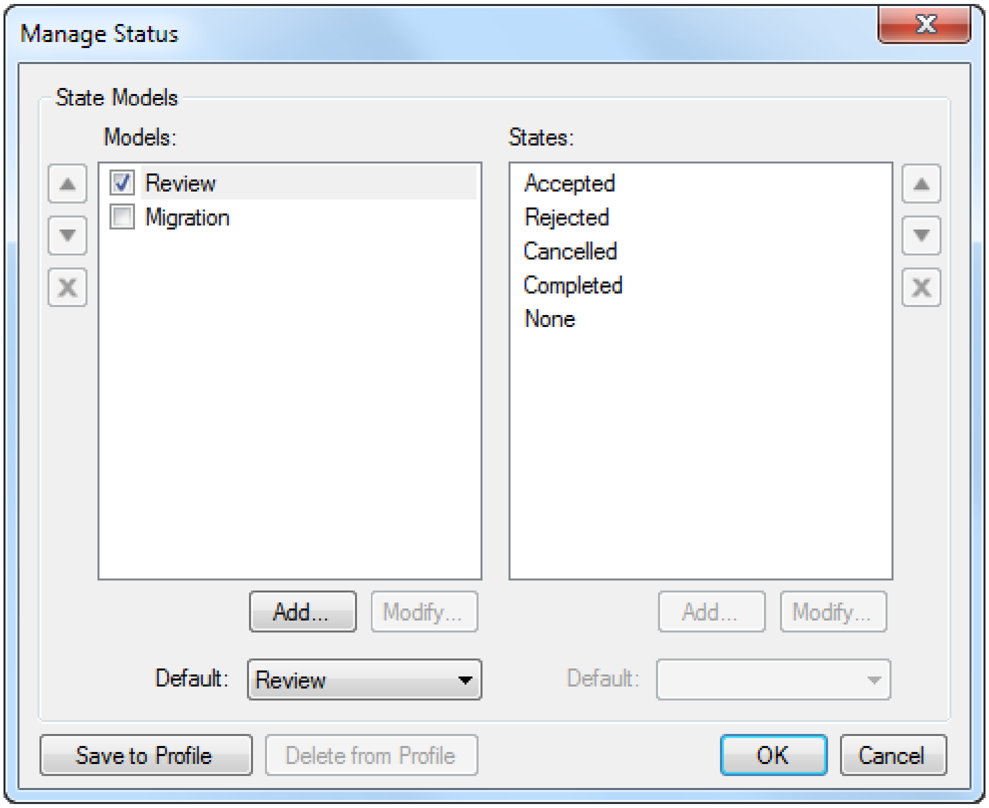
Modifying Existing States

The properties of both custom and preloaded states can be modified, though the properties of the preloaded states that can be modified is more limited.

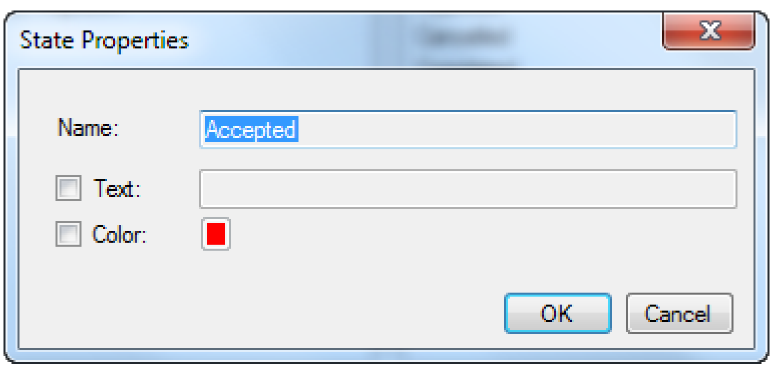
To modify the properties of an existing status:

1. Go to **View** > **Tabs** > **Markups** or press ALT+L to show the **Markups list**.
2. On the **Markups list** toolbar, click **Manage Status**. The **Manage Status** dialog box

appears.



3. Select the model that contains the status you wish to modify from the **Models** list.
4. Select the status you wish to modify from the **Status** list.
5. Click **Modify**. The **State Properties** dialog box appears.



6. Change any of the desired properties, as available:
    - **Name**: This is the name that appears in the **Status** menus. Can only be changed for custom states.
    - **Text**: When this option is enabled, the text entered in the corresponding field will automatically appear under any markup set to this status.

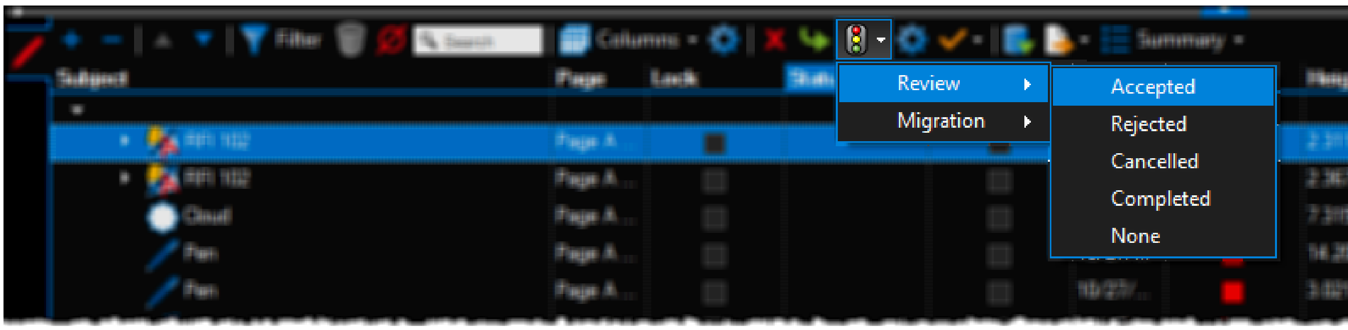
- **Color**: When enabled, the color of any markup set to this status will automatically change to the color defined in the corresponding color selector. Click the color selector to change the designated color.

7. Click **OK**.

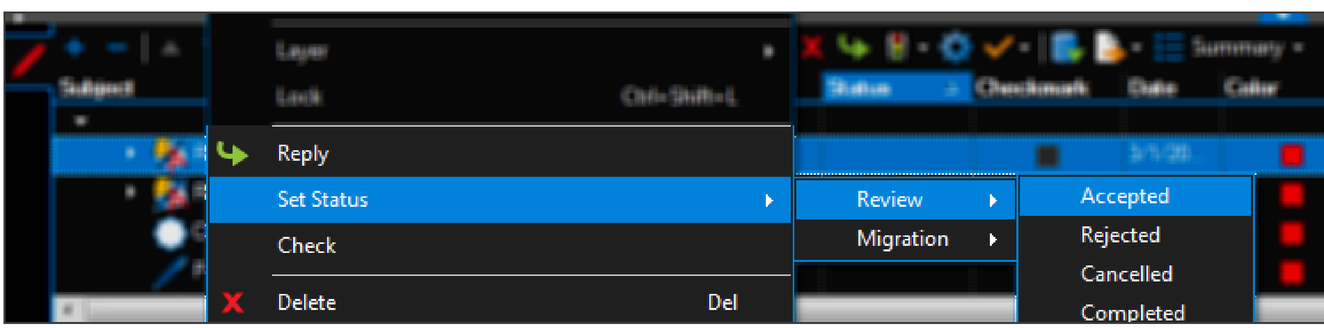
Applying a Status

To apply a status to a markup:

1. Select the markup in the **Markups list**.
2. On the **Markups list** toolbar, go to **Status** > *Model* > *Status*.



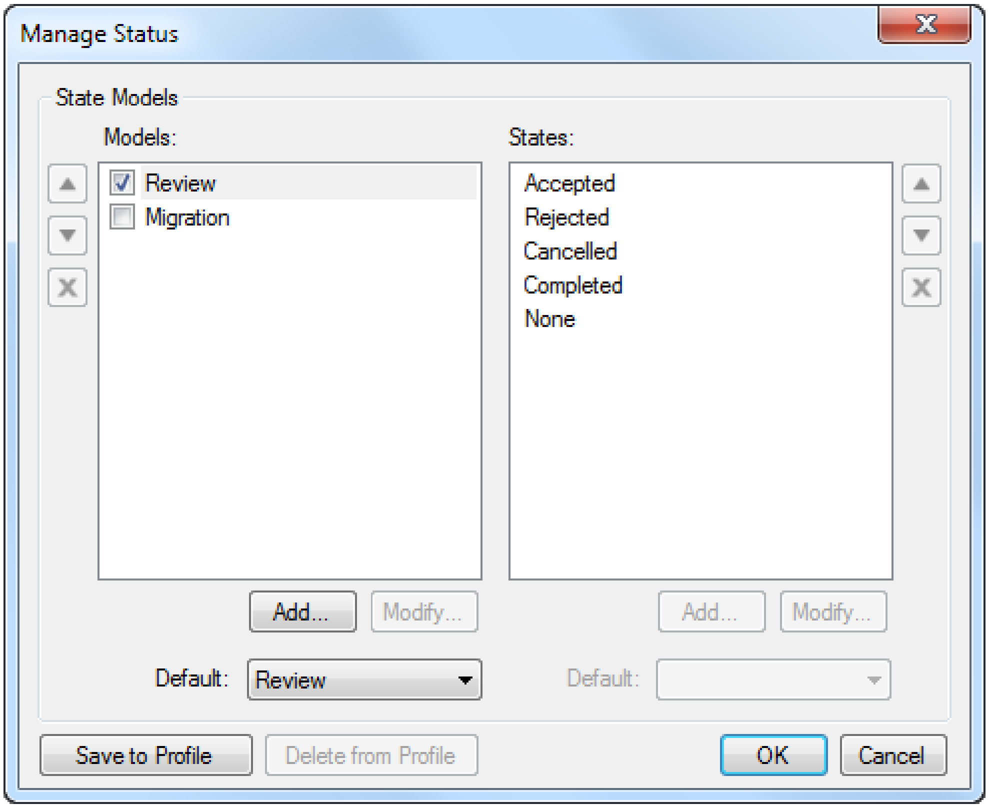
- Alternatively, right-click the markup in the main workspace or in the **Markups list** and go to **Set Status** > *Model* > *Status*.



Advanced Status Operations

There are several ways to customize how statuses are used in the Markups list. Common examples include hiding/showing specific models, setting a default model and state, and saving configurations to the current Profile. To perform any of these tasks:

1. Go to **View** > **Tabs** > **Markups** or press ALT+L to show the **Markups list**.
2. On the **Markups list** toolbar, click **Manage Status**. The **Manage Status** dialog box appears.



3. To toggle a status model's visibility in the Status menus, check or uncheck the box next to a model in the **Models** list.
4. To choose a default review model and state, select default **Models** and **States** from the corresponding **Default** lists.
   - Default states cannot be set for the preloaded models, only for custom models/states.
5. To save the current configuration to the current Profile, click **Save to Profile**.
   - Once a custom configuration has been saved to the Profile, the **Save to Profile** button becomes unavailable and the **Delete from Profile** button becomes available. Click **Delete from Profile** to restore the Profile to its default configuration. To change a custom configuration, make the desired changes, then click **Delete from Profile** (to revert back to default) and click **Save to Profile** to save the new configuration.
6. Click **OK**.

Creating a Punch List with the Markups List

The Markups list records every markup you make as it is made, and shows the markups in a tabular format. This eliminates the need to comb through hundreds or thousands of punch sketches to compile a punch list; Revu compiles the list for you. In addition, the Markups list has powerful sorting and filtering features to help you organize your punch list. The list can be exported to other programs or appended to the original PDF.

Sorting the Markups List

The Markups list allows sorting by any variable it records. Subject sorting allows you to sort markups by the discipline associated with each tool in the tool set. The Responsibility column tracks the responsible party for each tool, so even if multiple parties are responsible for a single discipline, such as two electrical contractors, you can ensure the correct party is notified of the correct punch items. The Space column allows you to quickly sort problems by the area they are located in, even if the markups are all on one page.

The Markups list also allows user-defined Custom Columns, which are completely customizable to suit your needs.

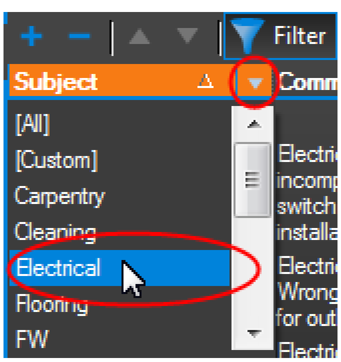
Go to **View** > **Tabs** > **Markups** or press ALT+L to show the **Markups list** if it is hidden.

Filtering the Markups List

The Markups list has a powerful filter that allows you to filter by column values or by searching.

The following example will demonstrate filtering by the Subject column for Electrical markups.

1. On the Markups list toolbar, click **Filter**.
2. Click the down-facing **triangle** next to the **Subject** column and select **Electrical**.



Only the Electrical markups will be visible in the Markups list, and on the drawing other markups will be dimmed. This process is the same for any column in the Markups list. It is also possible to filter by search term. The following example will also filter for Electrical markups, but using the search term method.

1. On the **Markups list** toolbar, click in the **Search** field.
2. Enter *Electrical*.

The result is the same as if you had filtered by the Subject column as above. This feature is especially useful when filtering a document with many Spaces: instead of going through a menu of hundreds of rooms, you can simply search for the room number you want.

Exporting and Appending Summaries

You can export the data to Excel or other spreadsheet programs using a CSV or XML export, or you can output a PDF summary that can either be appended to the drawing you are working on or made into a separate file.

Exporting an XML or CSV Summary

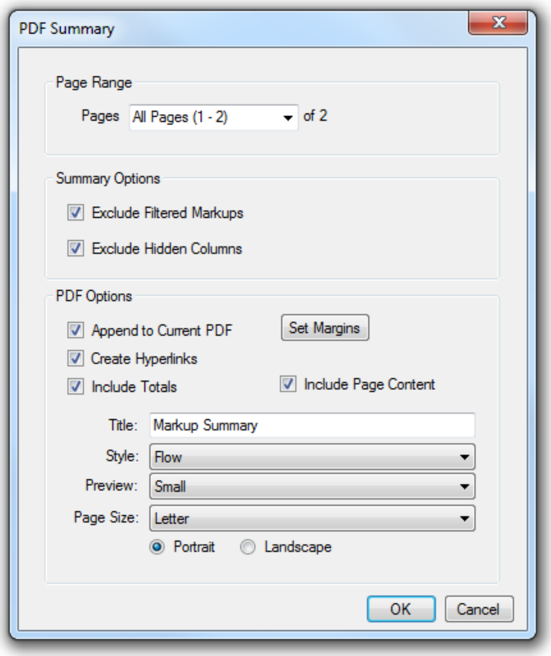
Note that Revu always outputs two extra columns of data that are used internally but have little use outside of the Revu program, so when exporting to Excel via either of these methods, you will want to hide the first two columns of the import. This can be done before or after the import is performed, but it must be done inside Excel. For more information on Excel, please refer to Microsoft's documentation.

1. On the Markups list toolbar, click **Summary** and select **XML** (or **CSV**) **Summary**.
2. Enter the range of pages you want summarized and click **OK**.
3. Chose a location to save the file, such as your Desktop, and click **OK**.

Exporting a PDF Summary

A PDF summary of the Markups list includes a thumbnail preview of each markup along with the data you've created. PDF summaries that are appended to the original PDF also include a hyperlink to the original markup. That way, as you are scrolling through the chart, if you want to jump back to the original drawing to check a measurement or see a larger context, a click will take you there. To create a PDF summary and append it to your drawing, perform the following steps.

1. On the **Markups** Markups list toolbar, click **Summary** and select **PDF Summary**.
   The **PDF Summary** dialog box appears.

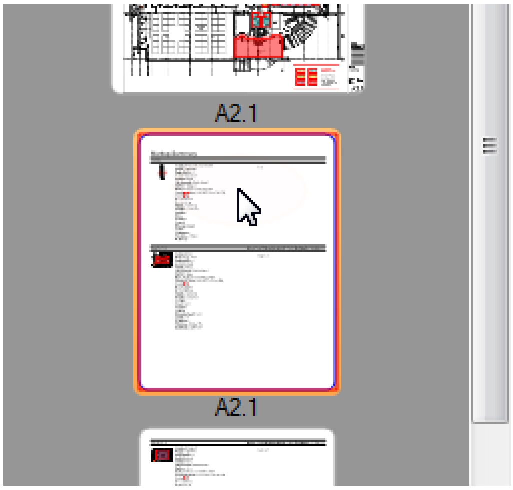


2. In the **Page Range** section, choose which pages to summarize.
3. In the **Summary Options** section, you can choose to **Exclude Filtered Markups** or **Exclude Hidden Columns** if you wish for that information to be left out of the summary.
4. In the **PDF Options** section, check the **Append to Current PDF** box. Ensure the **Create Hyperlinks** box is checked.
5. To adjust the page margins, click **Set Margins**.
6. Click the **Style** list and choose **Flow** or **Table**. Flow covers one markup at a time in a roomy readable flow. Table recreates the layout of the Markups list in a tabular format that fits more information per page.

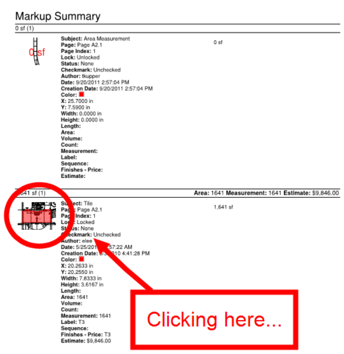
> **Note**: If you choose the Table style summary, an additional option, *Use Current Column Widths*, will be available. Uncheck this box to inherit the relative column widths of the current Markups list layout. Check this box to use default widths and override the Markups list's layout.

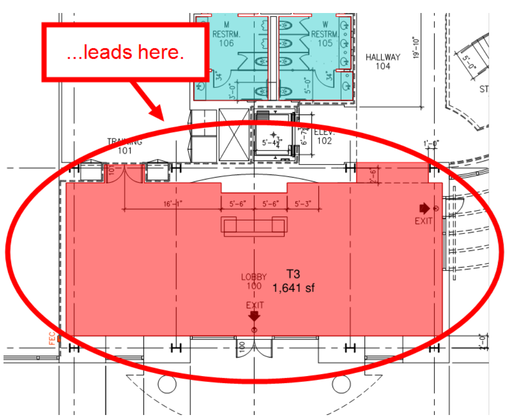
7. Click the **Preview** list and choose **Small**, **Medium**, **Large**, or **None**. This setting determines the size of the preview of each markup in the summary.
8. Click **OK**.

The summary will be created and appended. To view the summary, select the **Thumbnails** tab and click a summary page to jump to it in the workspace.



On the summary, each takeoff appears next to a display of data related to it. Click a markup to jump to that area of the original drawing.





Generating a Markups Summary

A markups summary is a way to publish a report of all of the markups in a PDF file, including any embedded images or videos. The summary can be sent to a printer or a file, or be appended to the end of the PDF. A summary differs from exporting markups because the data contained in the summary is formatted so that it can be read by other programs.

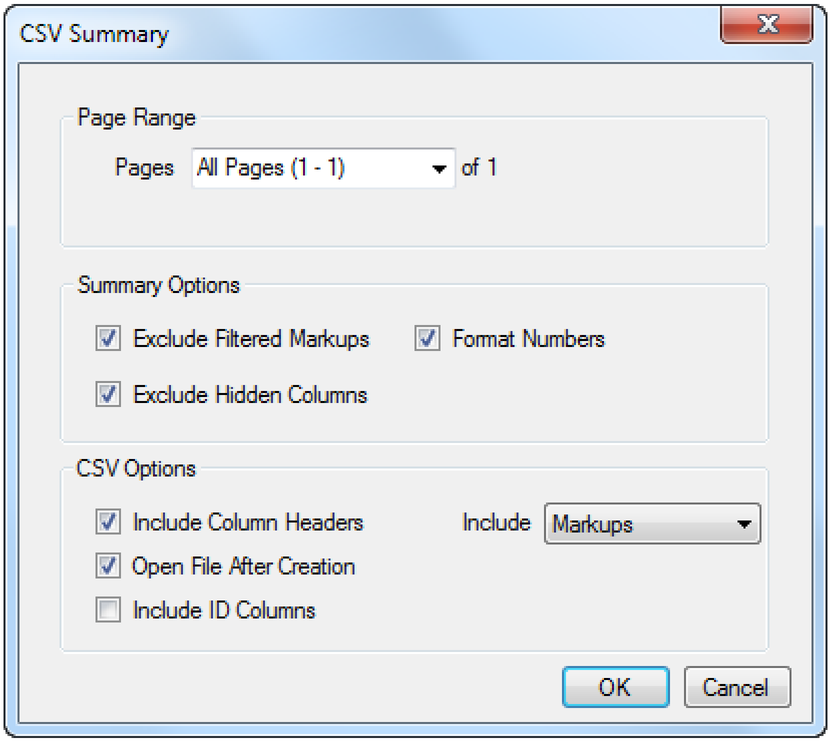
Creating a Markups Summary

1. Go to **File** > **Markups** > **Summary** and select the desired Summary type.
2. Configure the desired settings and click **OK**.

There are five output options for generating a Summary:

- **CSV**: Comma-separated values that can be read by Excel, a text editor and certain databases.
- **XML**: XML file that can be read by Excel, certain databases and other programs. XML contains richer formatting than CSV and is recommended when the file is intended to be used by Excel 2007 and above.
- **PDF**: Creates a separate PDF file or appends the Summary to the end of the current PDF file.
- **Print**: Print the Summary to a printer.
- **Capture**: PDF summary that produces the Capture Media Addendum available to the PDF and Print summaries as a stand-alone report.

CSV Summary Options



Page Range

To specify a Page Range that should be included in the summary report, select one of the following options from the **Pages** menu:

- **All Pages**: Sets the range to all pages.
- **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
    - Use a dash between page numbers to define those two pages and all pages in between.
    - Use a comma to define pages that are separated.

  For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

Summary Options

Exclude Filtered Markups: Select this option to exclude markups that are currently filtered out of the Markups list in the Summary. This allows you to use the Markups list Filters to selectively include or exclude markups from the Summary that you create.

Exclude Hidden Columns: Select this option to exclude data contained in hidden Markups list columns from the summary. This allows you to generate a summary report of exactly what you see in your Markups list.

Format Numbers: Select this option to preserve the number formatting of custom columns included in the report. When left unchecked, the numbers in these columns will still be included in the report, but they will be unformatted.

CSV Options

Include Column Headers: Select this option to add a row to the top of the CSV that contains the column names from the Markups list.

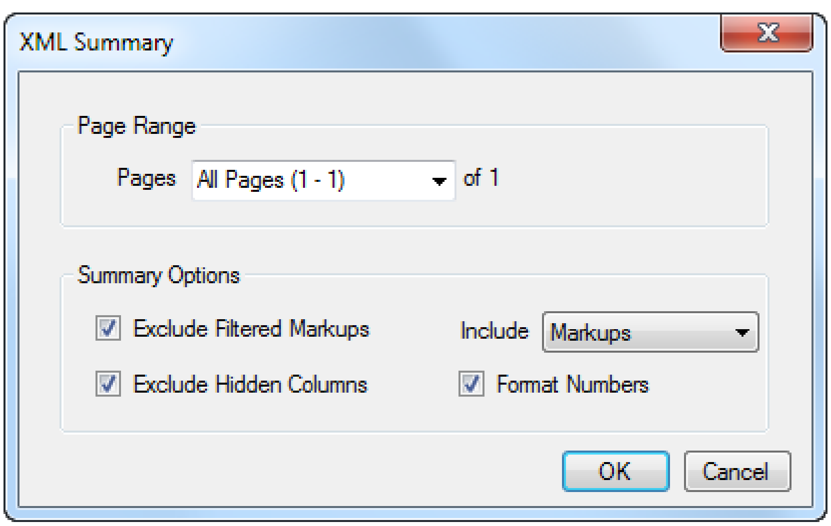
Include: Select the type of data to include in the report:

- **Markups**: Includes just markup data.
- **Totals**: Includes just the totals calculated by the current sort column in the Markups list.
- **Markups & Totals**: Includes both markup data and sort totals calculated by the current sort column in the Markups list.

Open File After Creation: Select this option to open the summary report in the device's default program for CSVs.

Include ID Columns: Select this option to add columns for **ID** and **Parent** to the CSV. This is particularly useful for grouped markups, which will have their parent markup specified in the **Parent** column.

XML Summary Options



Page Range

To specify a Page Range that should be included in the summary report, select one of the following options from the **Pages** menu:

- **All Pages**: Sets the range to all pages.
- **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
  - Use a dash between page numbers to define those two pages and all pages in between.
  - Use a comma to define pages that are separated.

  For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

Summary Options

Exclude Filtered Markups: Select this option to exclude markups that are currently filtered out of the Markups list in the Summary. This allows you to use the Markups list Filters to selectively include or exclude markups from the Summary that you create.

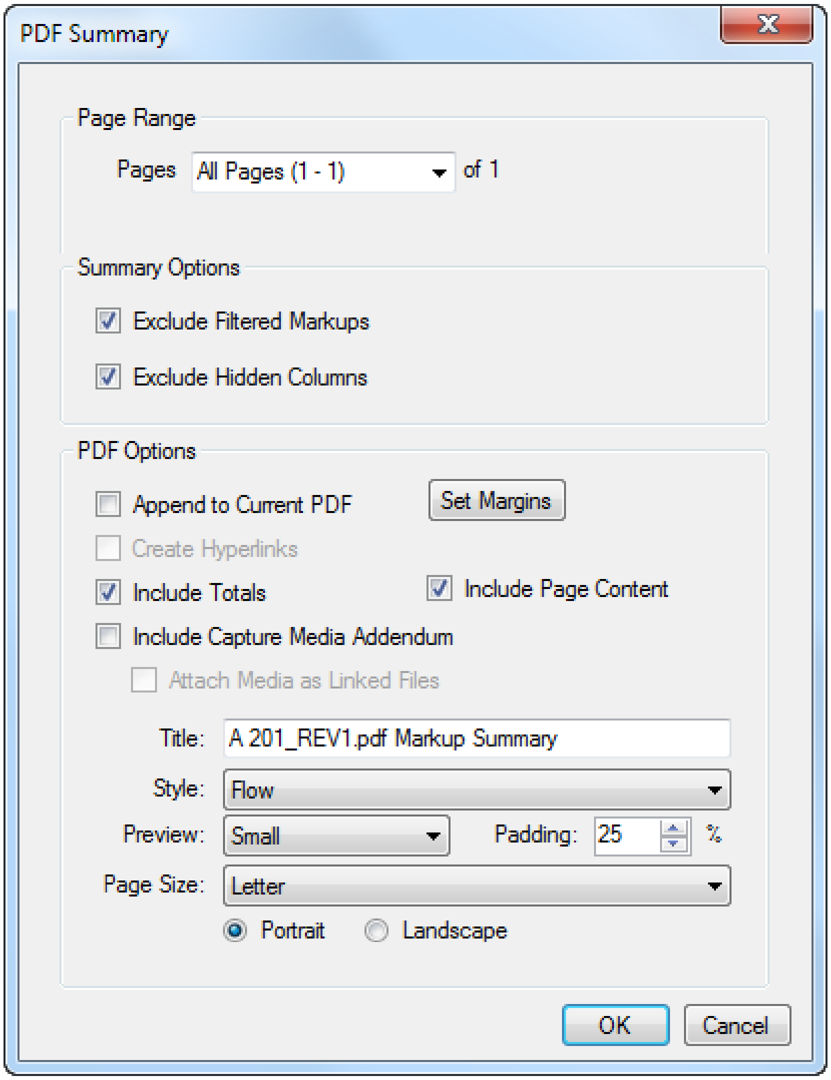
Exclude Hidden Columns: Select this option to exclude data contained in hidden Markups list columns from the summary. This allows you to generate a summary report of exactly what you see in your Markups list.

Include: Select the type of data to include in the report:

- **Markups**: Includes just markup data.
- **Totals**: Includes just the totals calculated by the current sort column in the Markups list.
- **Markups & Totals**: Includes both markup data and sort totals calculated by the current sort column in the Markups list.

Format Numbers: Select this option to preserve the number formatting of custom columns included in the report. When left unchecked, the numbers in these columns will still be included in the report, but they will be unformatted.

PDF Summary Options



Page Range

To specify a Page Range that should be included in the summary report, select one of the following options from the **Pages** menu:

- **All Pages**: Sets the range to all pages.
- **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:

- Use a dash between page numbers to define those two pages and all pages in between.
- Use a comma to define pages that are separated.

For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

Summary Options

Exclude Filtered Markups: Select this option to exclude markups that are currently filtered out of the Markups list in the Summary. This allows you to use the Markups list Filters to selectively include or exclude markups from the Summary that you create.

Exclude Hidden Columns: Select this option to exclude data contained in hidden Markups list columns from the summary. This allows you to generate a summary report of exactly what you see in your Markups list.

PDF Options

Append to Current PDF: Select this option to add the summary to the end of the current PDF file. When left unchecked, the summary report will be created as a separate file.

Set Margins: Click to set the margins of the summary table. A dialog box opens that allows you to input the **Top**, **Bottom**, **Left**, and **Right** margins.

Create Hyperlinks: Select this option to create hyperlinks from summary preview images to the region of that markup in the PDF file. This option is only available when **Append to Current PDF** is selected.

Use Current Column Widths: Select this option to cause the summary report table to inherit the relative width of the columns in the Markups list. If left unchecked, a set of default values are used to determine the width of the columns. This option is only available when the **Style** is set to **Table**.

Include Totals: Select this option to include the totals calculated by the current sort column in the Markups list on the report. This is particularly useful for easy subtotaling by subject or subcontractor.

Include Page Content: Select this option to include the underlying PDF content as part of the preview area in the summary. When left unchecked, only the markup is included.

Include Capture Media Addendum: Select this option to include larger views of all images and videos embedded with Capture as an addendum to the report. This is useful when the thumbnails allowed on the summary page are too small to be effective (which is common when there are multiple images or videos embedded in one or more markups).

Attach Media as Linked Files: Select this option to attach images and videos embedded with Capture to the summary report as linked files. Clicking on a preview image in the Capture

Media Addendum will open the image or video in the device's default viewer. This option is only available when **Include Capture Media Addendum** is selected.

Title: Enter the name of the summary and/or the summary PDF file.

Style: Choose **Table** or **Flow**.

Flow: In this summary style, markups are summarized one at a time, with a report-style block of information.

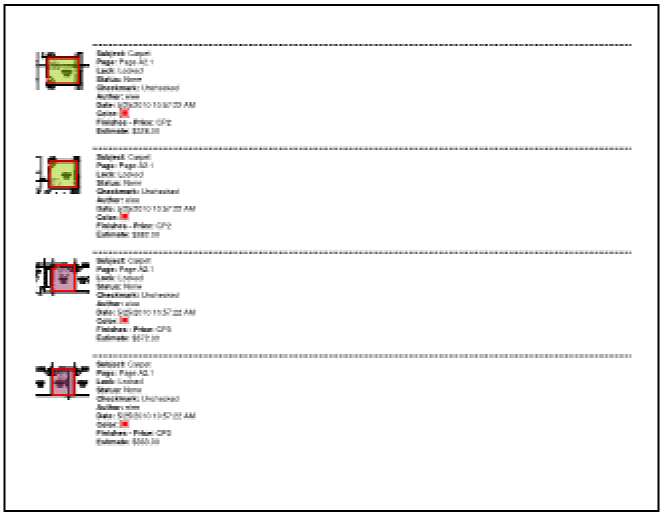
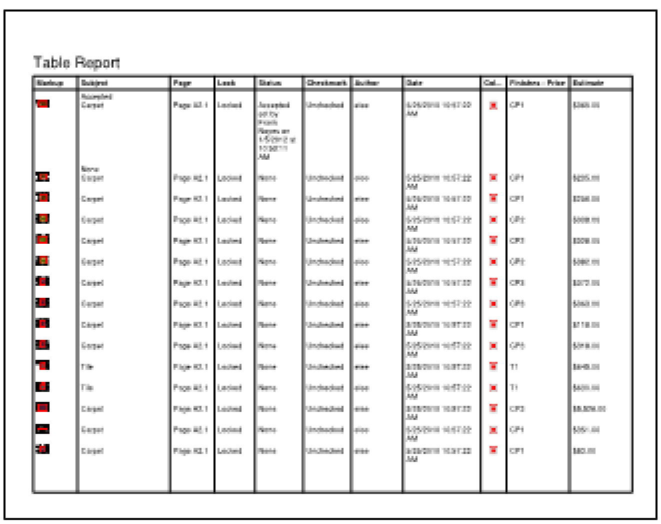


Table: In this summary style, markups are summarized in a tabular format to more closely mimic the look of the Markups list itself.

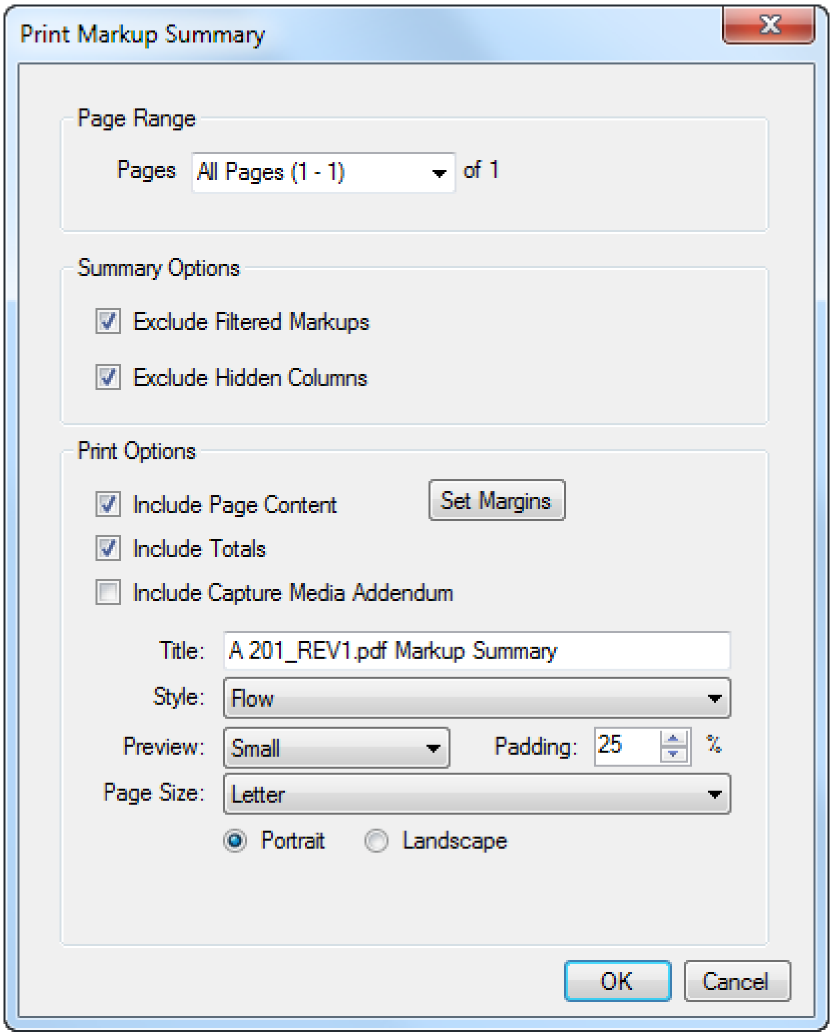


Preview: Select the size of the preview image for each markup displayed in the Markup Summary. The preview includes the markup appearance as well as the underlying PDF content (if **Include Page Content** is selected) in the region of the PDF where the markup is located.

Padding: Enter the amount of surrounding context shown around the preview image included in the Markup Summary. Setting a higher value provides more surrounding context.

Page Size: Select the page size and orientation (**Portrait** or **Landscape**) of the PDF output.

Printed Summary Options



Page Range

- **All Pages**: Sets the range to all pages.
- **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:

- Use a dash between page numbers to define those two pages and all pages in between.
- Use a comma to define pages that are separated.

For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

Summary Options

Exclude Filtered Markups: Select this option to exclude markups that are currently filtered out of the Markups list in the Summary. This allows you to use the Markups list Filters to selectively include or exclude markups from the Summary that you create.

Exclude Hidden Columns: Select this option to exclude data contained in hidden Markups list columns from the summary. This allows you to generate a summary report of exactly what you see in your Markups list.

Print Options

Include Totals: Select this option to include the totals calculated by the current sort column in the Markups list on the report. This is particularly useful for easy subtotaling by subject or subcontractor.

Include Page Content: Select this option to include the underlying PDF content as part of the preview area in the summary. When left unchecked, only the markup is included.

Include Capture Media Addendum: Select this option to include larger views of all images and videos embedded with Capture as an addendum to the report. This is useful when the thumbnails allowed on the summary page are too small to be effective (which is common when there are multiple images or videos embedded in one or more markups).

Title: Enter the name of the summary and/or the summary PDF file.

Style: Choose **Table** or **Flow**.

> **Flow**: In this summary style, markups are summarized one at a time, with a report-style block of information.

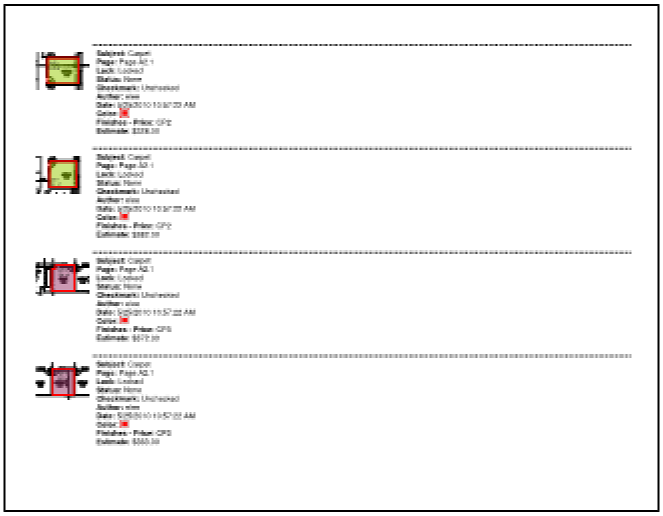
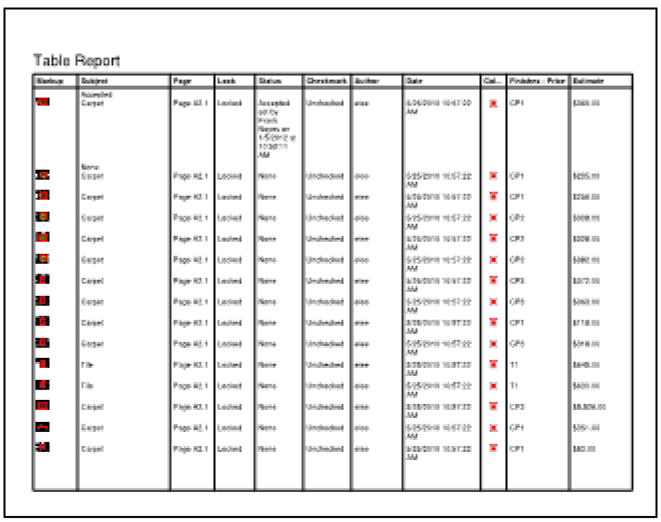


Table: In this summary style, markups are summarized in a tabular format to more closely mimic the look of the Markups list itself.

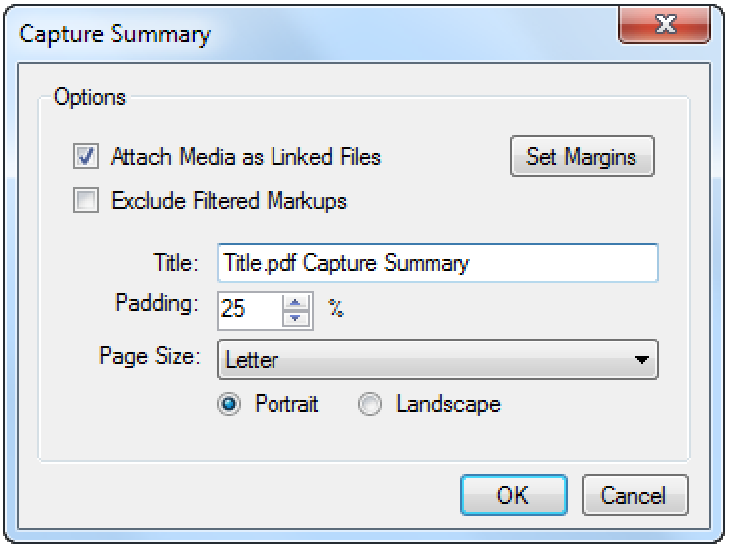


Preview: Select the size of the preview image for each markup displayed in the Markup Summary. The preview includes the markup appearance as well as the underlying PDF content (if **Include Page Content** is selected) in the region of the PDF where the markup is located.

Padding: Enter the amount of surrounding context shown around the preview image included in the Markup Summary. Setting a higher value provides more surrounding context.

Page Size: Select the page size and orientation (**Portrait** or **Landscape**) of the PDF output.

Capture Summary Options



Attach Media as Linked Files: Select this option to attach images and videos embedded with Capture to the summary report as linked files. Clicking on a preview image in the Capture Media Addendum will open the image or video in the device's default viewer. This option is only available when **Include Capture Media Addendum** is selected.

Exclude Filtered Markups: Select this option to exclude markups that are currently filtered out of the Markups list in the Summary. This allows you to use the Markups list Filters to selectively include or exclude markups from the Summary that you create.

Set Margins: Click to set the margins of the summary table. A dialog box opens that allows you to input the **Top**, **Bottom**, **Left**, and **Right** margins.

Title: Enter the name of the summary and/or the summary PDF file.

Padding: Enter the amount of surrounding context shown around the preview image included in the Markup Summary. Setting a higher value provides more surrounding context.

Page Size: Select the page size and orientation (**Portrait** or **Landscape**) of the PDF output.

FLATTENING

Flattening Markups

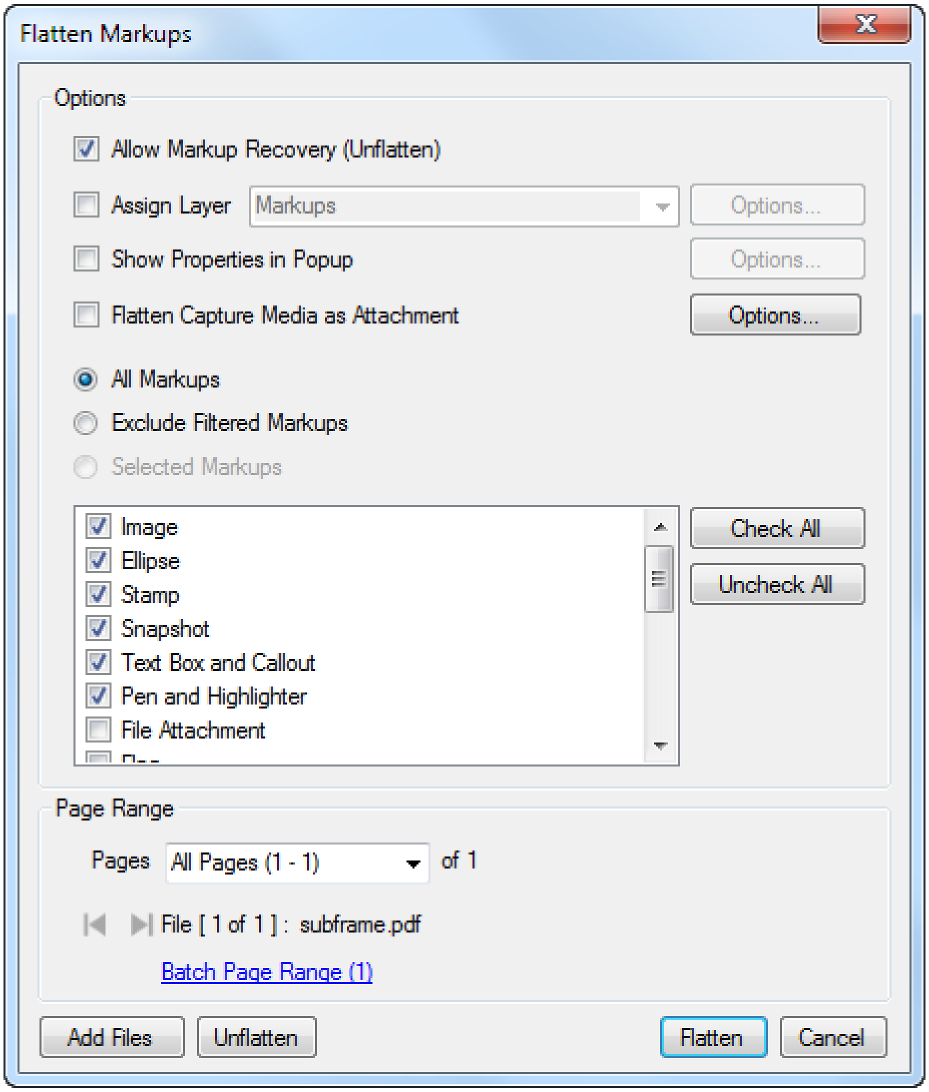
Flattening markups moves the markup from the annotations layer to the content layer, making it a permanent part of the PDF. Markups can be flattened individually or all at once. The Flatten Markups dialog box provides additional controls over how markups are Flattened.

- Flattening Individual or Selected Markups
- Flattening All Markups
- Flattening Settings
- Unflattening Markups

Flattening Individual or Selected Markups

To flatten with configurable flattening settings:

1. Select one or more markups in the main workspace or in the Markups list.
2. Go to **Document** > **Flatten Markups** or press CTRL+SHIFT+M. The **Flatten Markups** dialog box appears.



3. Select the desired flattening settings.
4. Click **Flatten**.

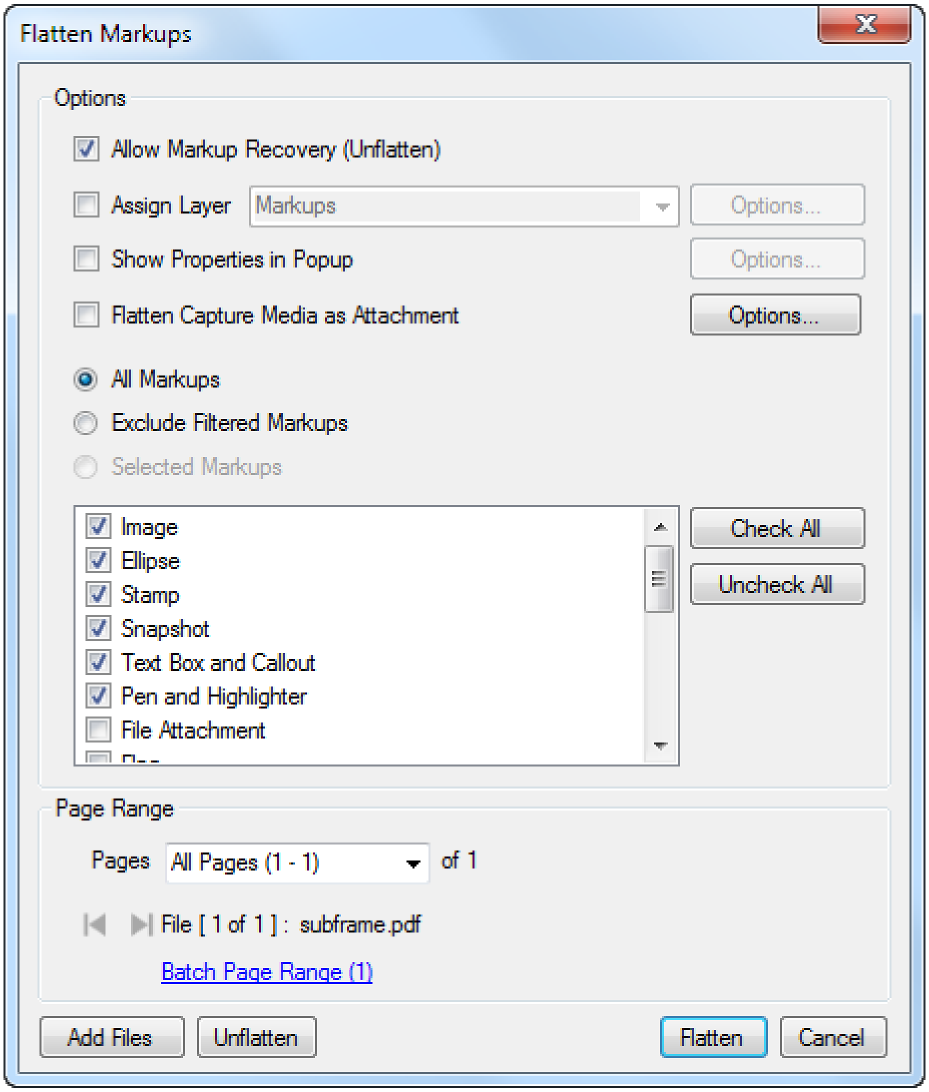
To flatten with default flattening settings:

1. Select one or more markups in the main workspace or in the Markups list.
2. Right-click a markup and select **Flatten**. The selected markup(s) are automatically flattened using the default flatten settings.
   - Revu will use the last flattening settings that were used by default.

Flattening All Markups

To flatten all markups on selected pages (including all pages) of a PDF at once:

1. Go to **Document** > **Flatten Markups** or press CTRL+SHIFT+M. The **Flatten Markups** dialog box appears.



2. Select **All Markups** and any other desired flattening settings.
3. To flatten the markups on specific pages of the PDF, choose one of the following from the **Pages** dropdown list:
   - **All Pages**: Sets the range to all pages.
   - **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
   - **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.

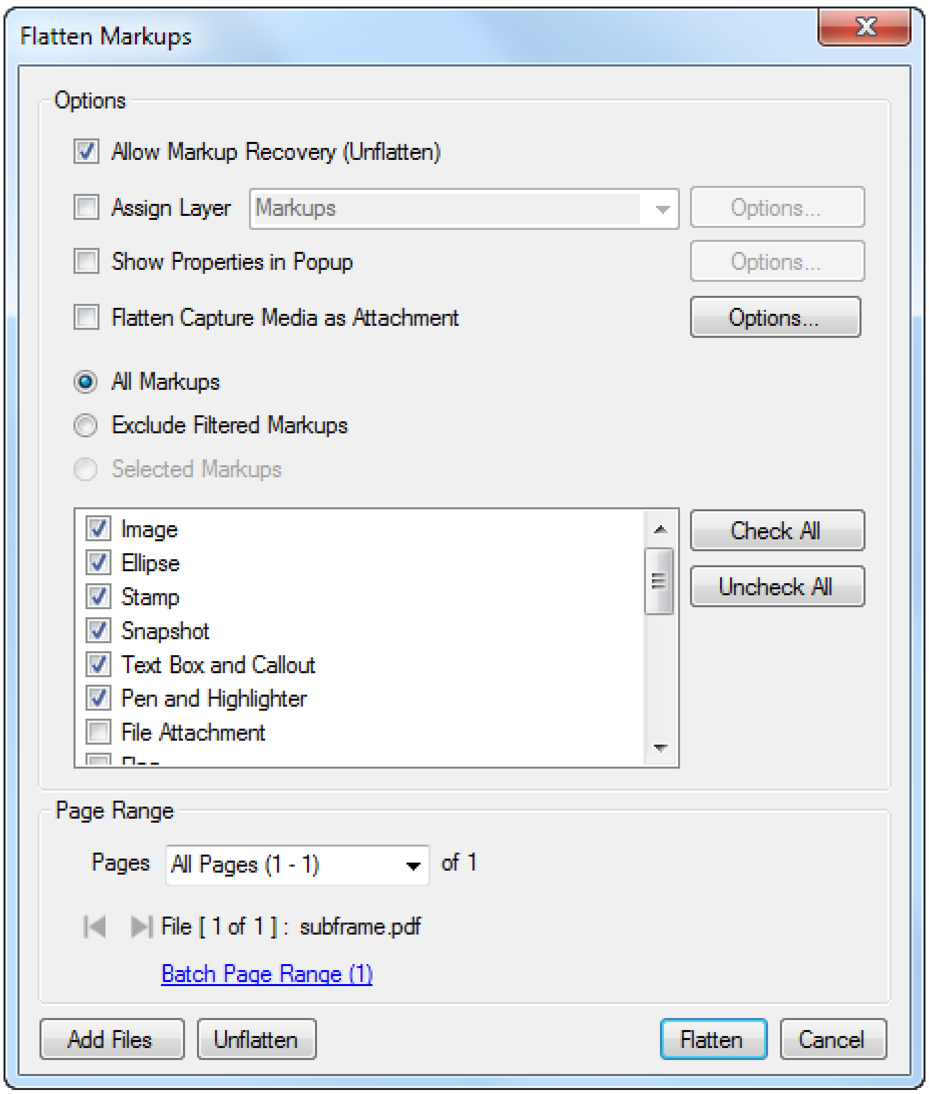
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
    - Use a dash between page numbers to define those two pages and all pages in between.
    - Use a comma to define pages that are separated.

  For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

4. Click **Flatten**.

Flattening Settings

The **Flatten Markups** dialog box contains several settings for customizing how Revu flattens markups. It can also be used to add files to the flatten process (flattening several documents at the same time using the same settings) or to unflatten previously flattened markups.



Allow Markup Recovery (Unflatten): Enables unflattening of the PDF if any markups need to be edited in the future. Flattening is irreversible if the PDF is flattened without this option checked.

Assign Layer: Flattens the markups to a Layer name as specified in the field next to this option. Enter a name to create a new layer or select an existing layer from the dropdown list.

Options: Click to enable any of the following related options:

Leave Markups on Existing Layer:

Overlay Text: When enabled, markups flattened to a layer show the name of the layer next to them.

Overlay Font and **Overlay Position**: Determines the font, size and position of the overlay text.

Show Properties in Popup: When enabled, selected properties will appear in a popup when the flattened markup is clicked. If not enabled, markup properties are lost.

Options: Click to select which properties will appear in the popup.

Flatten Capture Media as Attachment: When enabled, Capture media embedded in the markup will be flattened to a summary report (similar to the Capture Summary available from the Markups list) as an attachment.

Options: Click to enable any of the following related options:

All Markups: All markups matching the types selected in the **Flatten Markup Types** list, filtered or not, will be flattened.

Exclude Filtered Markups: Markups that are currently unavailable because of a Filter in the Markups list will not be flattened. All other markups matching the types selected in the **Flatten Markup Types** list below will be flattened.

Selected Markups: Flattens only the markups that were selected prior to opening this dialog box, if any. This option is not available if no markups were selected.

Flatten Markup Types list: Choose specific markup types to flatten or not flatten: checked types will be flattened, unchecked types will not. Click **Check All** to select all markup types. Click **Uncheck All** to deselect all markup types.

Page Range: Defines the page range that will be flattened. Options are:

- **All Pages**: Sets the range to all pages.
- **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.

- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
    - Use a dash between page numbers to define those two pages and all pages in between.
    - Use a comma to define pages that are separated.

  For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

Add Files: Click to specify additional files to be flattened using the same settings.

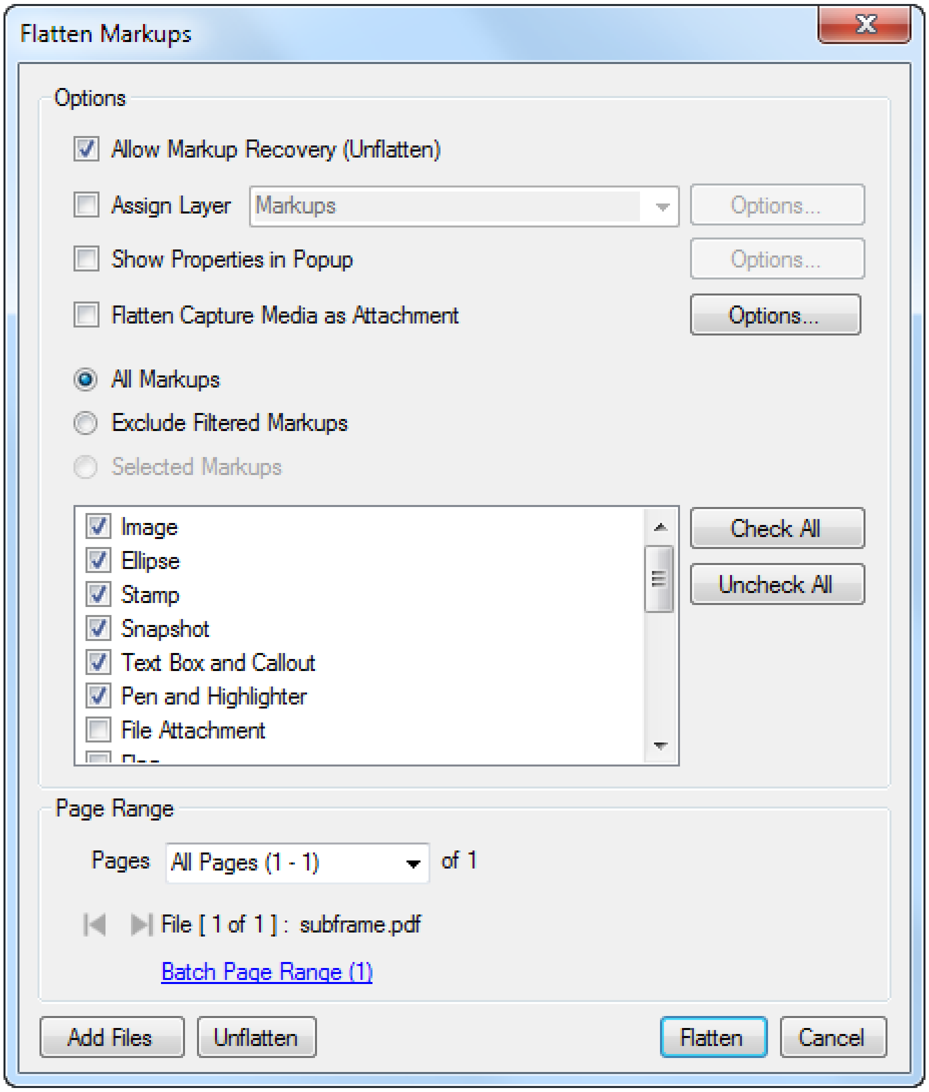
Unflatten: Recovers markups that have previously been flattened, if Allow Markup Recovery was selected when the markups were originally flattened.

Unflattening Markups

If Allow Markup Recovery was enabled when a markup was originally flattened and no other action has been taken on the page that would result in the markup being irretrievable (see Warning below), it can be unflattened.

To unflatten markups:

1. Go to **Document** > **Flatten Markups** or press CTRL+SHIFT+M. The **Flatten Markups** dialog box appears.



2. To unflatten the markups on specific pages of the PDF, choose one of the following from the **Pages** dropdown list:

- **All Pages**: Sets the range to all pages.
- **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:

  - Use a dash between page numbers to define those two pages and all pages in between.
  - Use a comma to define pages that are separated.

  For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

3. Click **Unflatten**. All markups on the selected pages are unflattened.

Warning: The following commands, if executed on a page containing flattened markups, will **prevent all markups** on the page from being unflattened:

- Edit Text
- Search & Replace
- Erase Content
- Cut Content
- Repair Page Content
- Color Processing
- Redaction
- Reduce File Size

If you intend to use these commands to edit the content of a PDF with flattened markups that you want to remain recoverable, unflatten all the markups before you execute these commands.

Studio Sessions and Projects for Collaboration

Bluebeam Studio

Studio Session: Create, Share and Collaborate in the Cloud

Studio combines the best of cloud storage and collaboration. Simply upload your PDFs to a Studio Session, and invite Attendees from around the world to view and add markups to the same PDFs in real time or on their own time. All Session activity is tracked in a record that conveniently links back to the PDFs. You can even create reports to archive or share with your team.

Join a Studio Session

Studio Projects: Take Collaboration Further

Studio Project acts as a simple document management system, giving users more flexibility and space when sharing and storing files in the cloud. Hosts can invite an unlimited number of Attendees to join a Project and upload folders or any file type to be viewed. PDF files stored in Projects can be used to start a Session for online collaboration and markup. Hosts also have the power to set permissions for groups of Attendees or a single Attendee such as the ability to add or delete files, invite Attendees to a Project, create Sessions from a Project, and manage permissions.

Join a Studio Project

Start a Studio Project

Attend a Studio Session

While attending a Studio Session, you will be able to interact with other Attendees and documents that have been uploaded to the Session. You will need a Studio account before you can attend a Session and either have been invited to attend or have been given the Session ID.

- What Can I Do When I Attend a Studio Session
- What Do I Need to Attend a Studio Session
- Joining a Studio Session

What Can I Do When I Attend a Studio Session?

For the most part, continue using Revu just like you normally do. By participating in a Studio session, you are able to collaborate with members of your project team on one or more files. Use the Markup and Measure tools to add comments and take-offs to the PDF document. Change, edit, and delete markups and measures that you have created and Reply to any markup or measure that other Attendees have created.

Additionally, there are features that are only available in a Session. You will see markups and measures added by other Attendees immediately as they are added or changed. You can send an alert about a markup to other Session Attendees to direct their attention to it. You can follow an Attendee and your display will update to show what they are seeing. You can chat with other Attendees and you can see a record of each markup, comment, and chat as it happens.

There are a few things that are different in a Studio Session. The Host, the person who started the Session, is initially the only one who can add or remove documents from the Session. The Host can give permissions for other users to add documents. You can Reply to other Attendees' markups and measures, but you cannot edit them. You can add markups and measurements, but you cannot make changes that change the PDF's content. For example, tools like Add, Delete or Reorder PDF pages, Edit Text, Flatten and Sign are not available because they change the document's content. For the same reason, you can use existing Bookmarks and Flags, but you cannot create new ones.

Menus and toolbars that cannot be accessed during Studio Sessions are grayed out.

The Session Host may restrict an Attendee's ability to save, print, or add markups to documents in the Session.

You can continue to work with other documents while you work in a Session. The document tabs at the top of the Revu workspace will display a small Studio icon for documents that are part of a Session.

What Do I Need to Attend a Studio Session?

You need only three things (besides a computer) to participate in Studio:

1. An installation of Revu or Vu (version 8.5 or above), or Revu for iPad.
2. An email address (to create a Studio Server account).
3. An Internet connection.

Attendees do not need to purchase Revu to participate in Studio. Both Vu and a trial version of Revu can be used to access Studio, both of which can be downloaded from http://www.bluebeam.com.

A Studio Account must be created so the Host can authorize you to participate in the Session and so other users can identify you. The account is free and only requires a valid email address.

An Internet connection is required so you can connect to the Studio server. A dial-up connection is not recommended.

Joining a Studio Session

You might receive an invitation to the Studio Session a number of ways, though the most common are by email or in person (in which case, you should also be told the Studio ID, which you can use to join).

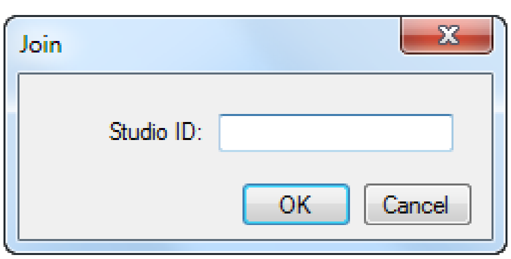
Before you can join a Studio Session , you must have a Studio account. If you do not, it's a simple matter to create one.

If you received an email invitation to a Studio Session , click on the Session URL in the message and you will connect to the Studio server automatically.

If you do not have a Studio account, the **Create Studio Account** dialog box appears first. You must create an account to join the Session .

You can also join a Studio Session using the Studio ID:

1. Go to **View** > **Tabs** > **Studio** or press ALT+C to access the Studio tab.
2. Click **Join**. The **Join** dialog box appears.



- If you do not have a Studio account, the **Create Studio Account** dialog box appears first. You must create an account to join the Session.

3. Enter the **Studio ID** and click **OK**.

Join a Studio Project

Studio Project acts as a simple document management system. After joining a Project, you will be able to access Project files and will be able to check out documents for editing. So long as somebody has a Project file checked out, nobody else will be able to edit it, ensuring document control. You will need a Studio account before you can join a Project and either have been invited to attend or have been given the Project ID.

- What Can I Do in a Studio Project?
- What Do I Need to Join a Studio Project?
- Joining a Studio Project

What Can I Do in a Studio Project?

Projects are PDF and other file types stored in the cloud. These files have been shared and you have been invited to the Project to contribute to the project. PDF files are opened in Revu where the files can be marked up and edited. Other files types can also be added to the project. These files are opened in their own programs, like Word and Excel.

What Do I Need to Join a Studio Project?

You need only three things (besides a computer) to participate in a Studio Project:

1. An installation of Revu or Vu (version 8.5 or above), or Revu for iPad.
2. An email address (to create a Studio Server account).
3. An Internet connection.

Attendees do not need to purchase Revu to participate in Studio. Both Vu and a trial version of Revu can be used to access Studio, both of which can be downloaded from http://www.bluebeam.com.

A Studio Account must be created so the host can authorize you to participate in the Project and so other Attendees can identify you. The account is free and only requires a valid email address.

An Internet connection is required so you can connect to the Studio server, studio.bluebeam.com. A dial-up connection is not recommended.

Joining a Studio Project

You might receive an invitation to the Studio Project a number of ways, though the most common are by email or in person (in which case, you should also be told the Studio ID, which you can use to join).

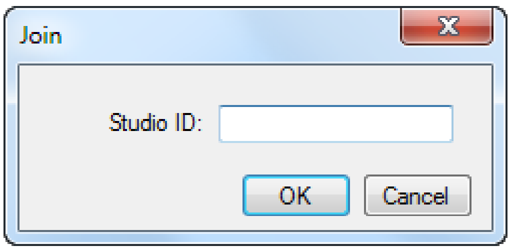
Before you can join a Studio Project , you must have a Studio account. If you do not, it's a simple matter to create one.

If you received an email invitation to a Studio Project , click on the Session URL in the message and you will connect to the Studio server automatically.

If you do not have a Studio account, the **Create Studio Account** dialog box appears first. You must create an account to join the Project .

You can also join a Studio Project using the Studio ID:

1. Go to **View** > **Tabs** > **Studio** or press ALT+C to access the Studio tab.
2. Click **Join**. The **Join** dialog box appears.



    - If you do not have a Studio account, the **Create Studio Account** dialog box appears first. You must create an account to join the Session.

3. Enter the **Studio ID** and click **OK**.

Host a Studio Project

Studio Projects let you share critical files—not just PDFs—with specific people who can review those files or update them. Projects employ a document management system that prevents multiple users from updating files at the same time. You can determine which users are allowed to perform which actions in a Project by controlling their permissions. PDFs in a Project can also be used to start a new Session or added to an existing Session.

Before you can start a Studio Project you must create a Studio account.

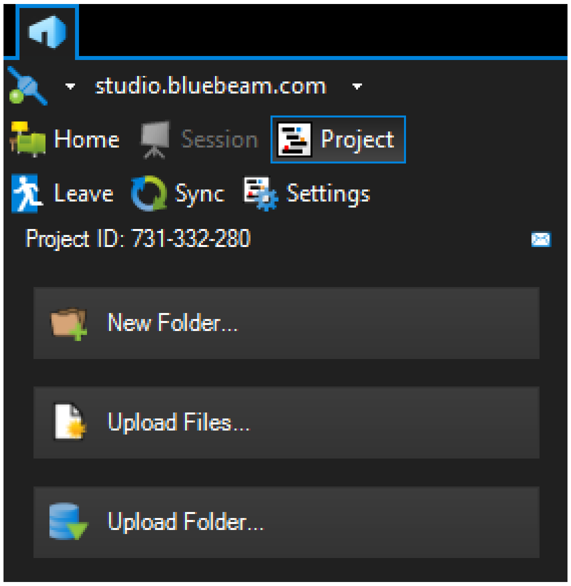
- Starting a New Project
- Configuring Project Settings
- Inviting Users to the Project

Starting a New Project

You will need a validated Studio account to create a Studio Project. If you have not established one yet, do so now.

To start a new Project:

1. Go to **View** > **Tabs** > **Studio** or press ALT+C to open the Studio tab.
2. On the **Studio** tab, go to **Start** > **New Project**. The **New Project** dialog box appears.
    - If you have not already created an account, the **Create Studio Account** dialog box appears instead. Create a Studio Account before proceeding.
3. Enter a name for the Project and click **OK**. The Studio tab changes to show the empty Project.



4. To add initial Project files, select from the following options:

   - **New Folder**: Creates a new folder in the root directory of the Project. Once selected, the **New Folder** dialog box appears. Enter a name for the folder and click **OK** to create it.
   - **Upload Files**: Uploads individually selected files to the root directory of the Project. Once selected, the **Open** dialog box appears. Navigate to the desired files (CTRL-click or SHIFT-click to select multiple files, if desired) and click **Open**.
   - **Upload Folder**: Uploads the contents of a folder to the root directory of the Project. Once selected, the **Select a folder to upload** dialog box appears. Navigate to and select the desired folder and click **Select Folder**.
     - This option recreates the selected folder in the Project and uploads the contents into that folder automatically.

   Additional files and folders can be added to the Project later as well.

Configuring Project Settings

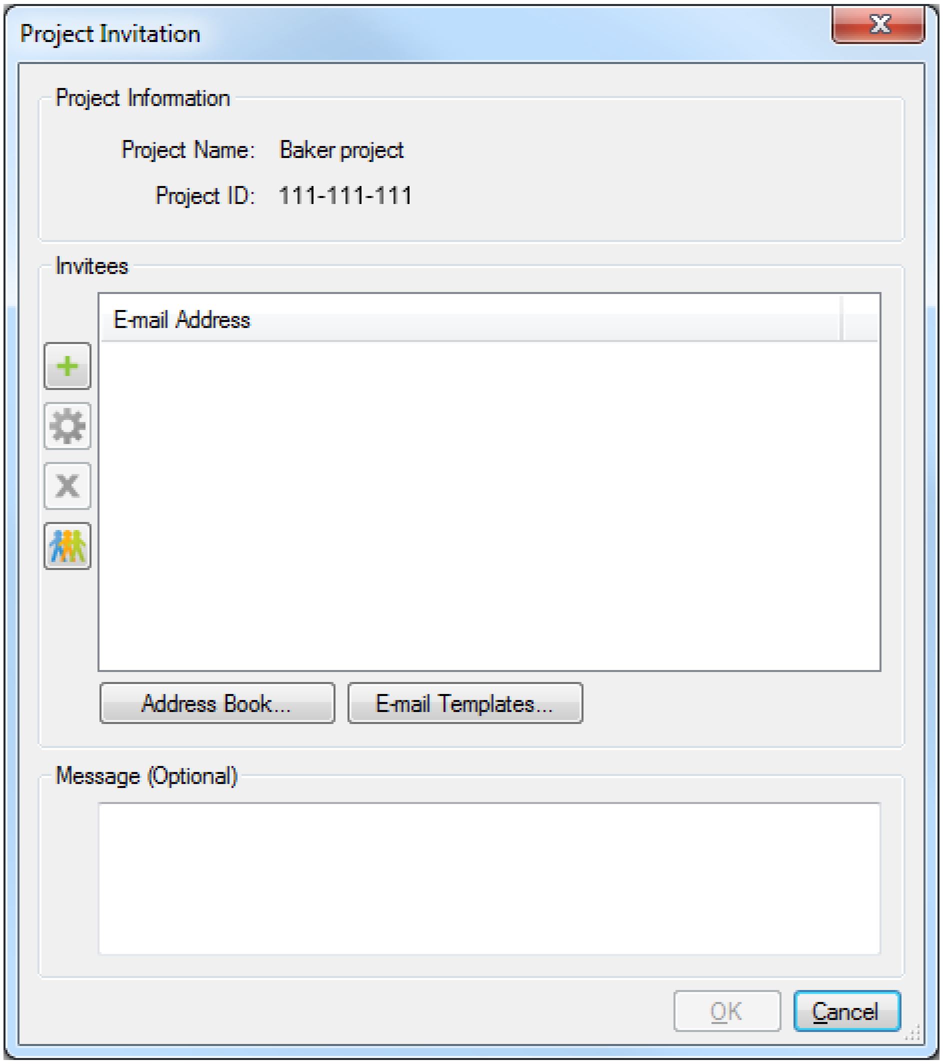
By default, no other users are granted access to a new Project and permissions for any who are invited are very limited. You can change these conditions by configuring the Project Settings.

Inviting Users to the Project

Inviting somebody to a Project automatically adds them as an Allowed User in the Project Settings. In addition, the invitee is also sent an email containing information about the Project as well as a link allowing them to automatically connect to the Project.

To invite a user to the Project:

1. When in the Project, click **Invite** on the **Studio** tab. The **Project Invitation** dialog box appears.



2. The **Project Information** is shown at the top of the dialog box. To copy this information to the clipboard in order to paste it into another program, such as an email message, IM or other document, click **Copy Invitation**.
3. To add invitees from the address book of your default email program, click **Address Book**.

> **Note**: The email program must be MAPI compliant for Revu to access its address book. The address books from web-based email like Gmail, Hotmail or Yahoo cannot be accessed.

4. To add invitees manually, click +. When the **Add E-Mail Address** dialog box appears, enter the invitee's email address and click **OK**.
5. To add all the members of an existing Group, click . When the **Select Groups** dialog box appears, select the desired Group and click **OK**.
6. To change the email address of an invitee, select the entry and click . When the **Modify E-mail Address** dialog box appears, enter the new email address and click **OK**.
7. To remove an invitee, select the entry and click .
8. Enter a **Message** to add to the invitations, if desired.
9. Click **OK**. Email invitations will be sent to all the invitees from the Studio server.

Deleting a Project

When a Project is deleted, it and all of it files are removed from the Studio Server. For Projects created using Studio Server 3.0 or higher, this can be undone; for Projects created using an earlier version of Studio Server, this is permanent and cannot be undone.

It is recommended that before deleting a Project that you join the Project and save any files you might want to keep.

To delete a Project:

1. On the Studio tab, right-click the desired Project and select **Delete**.
2. A confirmation dialog box appears. To delete the Project and its documents, click **Yes**.

Comparing Document Revisions

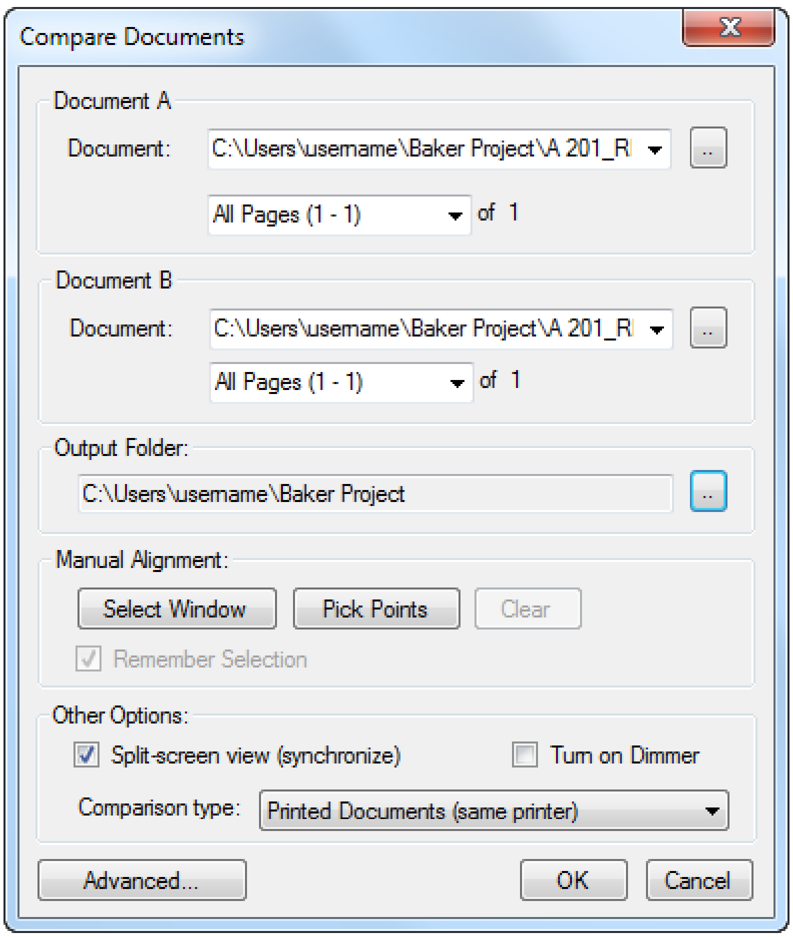
Comparing Documents

The Compare Documents feature is used to compare two PDFs and highlight the differences. The differences are indicated with markups that can be reviewed easily using the Markups list. There is also a batch version of Compare Documents for comparing groups of PDFs.

- Comparing Two Versions of the Same Document or Drawing
- Advanced Comparison Options

Comparing Two Versions of the Same Document or Drawing

1. Go to **Document** > **Comparison** > **Compare Documents**. The **Compare Documents** dialog box appears.



2. Select the first document to be compared in the **Document A** section:
   - If the document is currently open in Revu, select it from the **Document** dropdown list in the **Document A** section.

    - If the document is not currently open in Revu, click to the right of the **Document** dropdown list in the **Document A** section, then navigate to and open the desired document.
3. Select the **Page Range** that should be compared.
    - **All Pages**: Sets the range to all pages.
    - **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
    - **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
        - Use a dash between page numbers to define those two pages and all pages in between.
        - Use a comma to define pages that are separated.

    For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.
4. Repeat this process for **Document B**.
5. Select the local, network, or DMS folder into which the comparison document should be saved by entering the path to that folder in the **Output Folder** field or by clicking to the right of that field and navigating to the desired folder.
6. If you want to compare only a specific region of each document, click **Select Window**. The dialog box will disappear. Click and drag a rectangle to define the region to be compared. Otherwise the entire document will be compared.
7. By default Revu will attempt to line up the documents. If you wish to override the automatic alignment, click **Pick Points** to specify the alignment points. You will need to pick 4 points on each document. The points should be specified in a clockwise order and the alignment points should correspond to one another; for example, Selection Point 1 on Document A should correspond to Selection Point 1 on Document B.
8. To open side-by-side, synchronized windows for reviewing the differences noted after the comparison process completes, check **Split-screen view**.
9. To dim underlying PDF content and make the locations where differences are found easier to see, check **Turn on Dimmer**.
10. Select a **Comparison Type** containing pre-configured comparison settings. These settings can be customized by clicking **Advanced**. See Advanced Comparison Options below for more information.
11. Click **OK**. Once the comparison process is complete, any differences will be annotated.

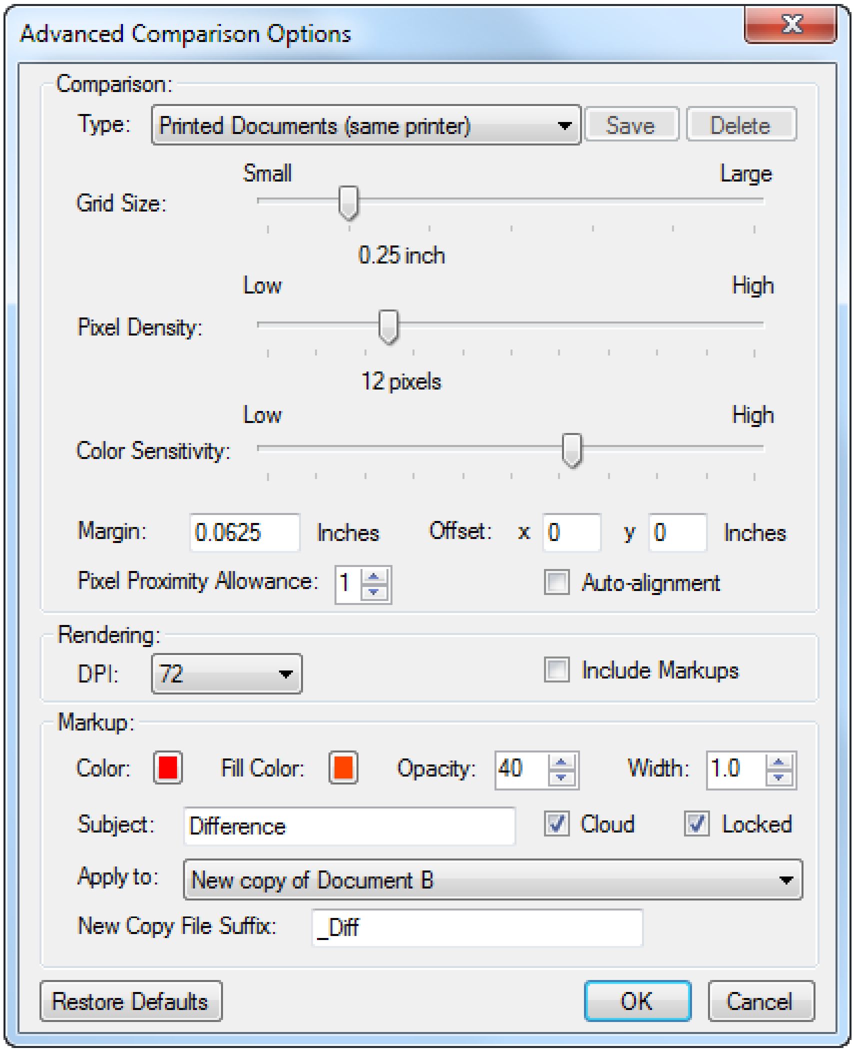
If the **Split-screen view** box was checked, the two compared documents will open in a side-by-side manner. Zooming or panning on one window will update the display in the opposite window. This is useful for visually comparing the before/after, changed, and unchanged parts of the two documents. The markups that were added will appear in either the left or right window depending on which PDF was specified.

Open the Markups List to see a table of markups that were automatically added when differences were detected.

As a markup is selected in the **Markups list**, the Revu workspace will jump to the location of the difference.

Advanced Comparison Options

Use the Advanced Comparison Options to fine-tune the document comparison process. It is recommended that you use the default **Comparison** and **Rendering** settings provided and change these settings only if the document comparison process does not appear to detect differences.



Three default comparison **Types** are provided: **Printed Documents (same printer)**, **Printed Documents (different printer)** and **Scanned Documents**. Each **Type** has pre-configured Comparison settings. You can change the settings of any of the default **Types** or create a custom **Type** by selecting <**New Custom**>. The Advanced Comparison Options are:

Comparison Options

- The comparison process breaks the document into a region of grids for comparison. **Grid Size** defines the size of the individual grid segments used for comparison. These regions are then inspected for different pixels to identify as a differing region.
- **Pixel Density** controls the threshold amount of differences in a particular area (defined by the **Grid Size**) when detecting differences.
- **Color Sensitivity** helps to determine the threshold at which pixel differences will be determined. A lower sensitivity setting will not detect as many differences as a higher sensitivity setting.

  - This setting works in conjunction with the **Pixel Proximity Allowance**. Increase this value to check adjoining areas for similar pixels.
- Set the **Margin** value to ignore regions around the borders of the PDFs being compared.
- Enter values in the **Offset** setting if you know one document is offset from the document that is being compared. Likewise, you may check **Auto-alignment** to instruct Revu to automatically align the drawings or documents that are being compared. Auto-alignment is recommended for comparing scanned drawings.

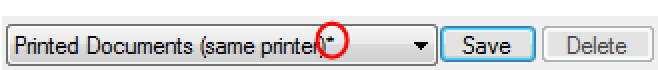
Rendering Options

- **Rendering DPI** determines the resolution used to rasterize the PDFs. The default setting is 72. Set the value higher (144) if finer resolution is needed for the comparison.
- By default, the comparison tool ignores existing markups on the documents, since these can already be easily located via the Markups list. Check **Include Markups** to override this behavior and render markups for comparison.

Markup Options

- Determine the appearance of the markups that will be used to annotate differences found during the comparison by setting the **Color**, **Fill Color**, **Opacity** and **Width**. If cloud markups should be used, check **Cloud**.
- If the annotations should be locked when they are placed, check **Locked**.
- Enter a name for the difference annotations (for example, “Differences 5-7-14”) in the **Subject** field, if desired. This makes it easy to group the difference annotations together on the Markups list by sorting by Subject. A series of difference comparisons can be made over time to provide a change history.
- Select which document the difference annotations should be added to from the **Apply to** dropdown list. If one of the "New copy" options is selected, a new document containing the difference annotations will be created based on the indicated document. Otherwise, the difference annotations will be added to the selected document(s).
- Enter a **File Suffix** that will be appended to the comparison document file name generated during the comparison process. This will make it easier to differentiate the comparison document from the originals.

If you change a value in a default comparison **Type**, its name is marked with an asterisk (*).



To change the settings of the current type permanently, click **Save**. The **Save Document Comparison Settings** dialog box will open. Enter a name for this configuration. If you are changing the settings of a default **Type**, its name will be auto-populated; you can save it under the default name or change it, creating a new type.

To restore the included types to their default settings, click **Restore Defaults**.

Overlay Pages

The overlay process in Revu lets you compare two or more PDFs by converting the colors of each document to a different color and stacking them on top of each other to create a new PDF with multiple colors. Each layer is transparent and blends with the layers below it. Where the colors are stacked directly over each other, they blend to create a darker color that is a combination of the stacked colors, making it easier to see which elements have changed and which ones have remained the same from revision to revision.

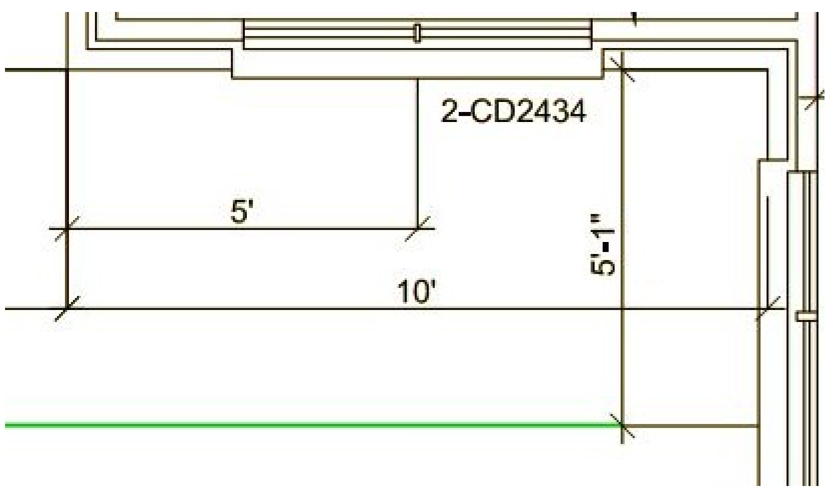
There is also a batch version of Overlay.

- An Example of Overlay at Work
- Overlaying Pages
- Editing Default Overlay Settings

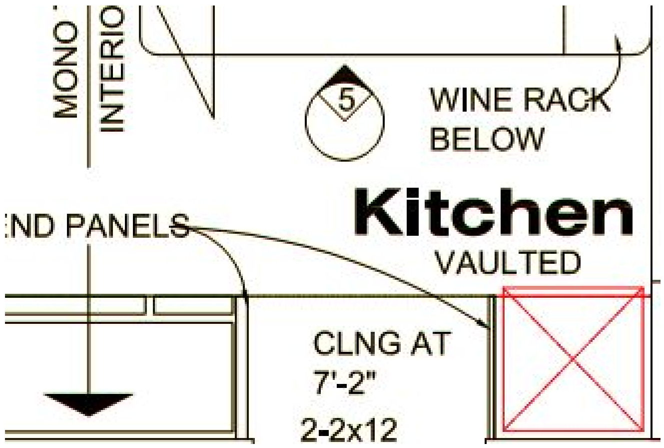
An Example of Overlay at Work

In the example below, the first revision was colored red and the second was colored green. Wherever you see black lines, the red and green lines are stacked directly on top of each other, blending to form the darker black line and indicating areas where no changes were made from the first revision to the second.

Meanwhile, a green line indicates something that was added in the second revision.



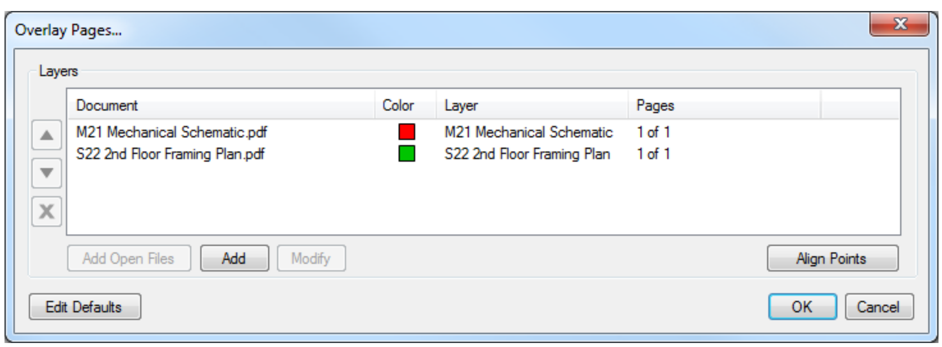
A red line indicates something that was present in the first revision and removed from the second.



Overlaying Pages

In general, when you run an Overlay comparison, Revu assumes that you wish to do so on PDFs that are currently open, so you might want to open the PDFs you plan to overlay first. It's not required, however.

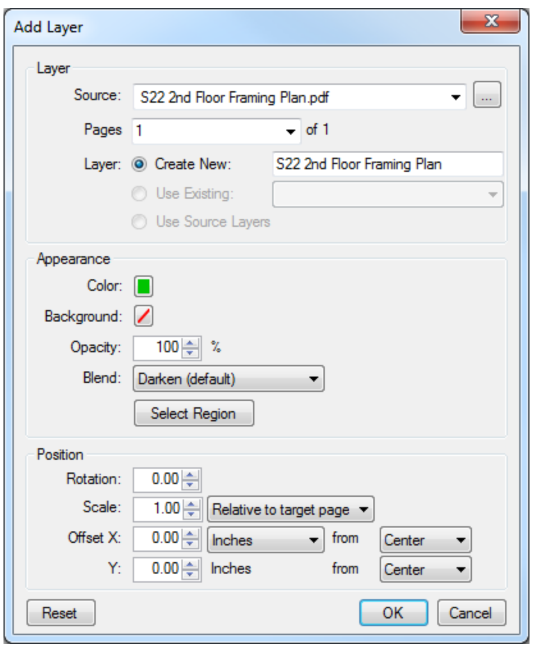
1. Go to **Document** > **Comparison** > **Overlay Pages**. The **Overlay Pages** dialog box appears and the open PDFs are automatically added to the **Layers** list.



- No more than two PDFs are added automatically. More can be added manually, if desired.
- If there are more than two PDFs open in Revu, the active PDF and the first PDF in the workspace (that is, the ones whose tab is in the far-left position) are added. If the active PDF is also the first PDF, then it's the first and the second PDFs that are added.
- If there are fewer than two PDFs open, the **Open** dialog box automatically appears after the **Overlay Pages**dialog box. Navigate to the desired PDF and double-click it and the **Add Layer** dialog box opens. Skip ahead to the discussion of the **Add Layer** dialog box settings.

- The layers are automatically assigned a default color. These colors are changeable, but they have been specifically chosen to make the overlay process work more smoothly, so keeping the default colors is recommended.

2. To add the PDFs currently open in Revu, click **Add Open Files**.
    - All files currently open in Revu are added. To remove one, select it and click .
3. To modify any of the overlay settings for a PDF in the **Layers** list (for example, its color), select it and click **Modify**. The **Add Layer** dialog box appears. Skip ahead to the discussion of the **Add Layer** dialog box settings.
4. If, at this point, you have all the PDFs you want in the **Layers** list and you want to keep their current overlay settings, skip ahead to align your PDFs. Otherwise, proceed to the next step.
5. To add a PDF from the workstation or a networked drive, click **Add**. The **Add Layer** dialog box appears.
6. In the **Add Layer** dialog box:



   a. The PDFs currently open in Revu are listed in the **Source** dropdown menu. Select one to use it. Otherwise, click ... to the right of the **Source** menu and navigate to the desired PDF.
   b. Select a page range from the **Pages** dropdown menu to determine which pages of the source file will be added. Options are:

- **All Pages**: Sets the range to all pages.
- **Current**: Sets the range to the current page only. The current page number will appear in parentheses, for example, *Current (2)* if page 2 is the current page.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
    - Use a dash between page numbers to define those two pages and all pages in between.
    - Use a comma to define pages that are separated.

  For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

c. Select one of the **Layer** options:
   - To create a new layer from the source PDF, select **Create New** and enter a name for the layer in the field to the right.
   - To add the source PDF to an existing layer, select **Use Existing** and select the desired layer.
   - To import the layers of the source PDF as duplicate layers, select **Use Source Layers**.

d. Click the **Color** button to choose a color for this layer to be converted to.

e. The **Background** can be changed to a range of colors but is set to transparent as a default. If you choose to change this to a solid color to block out any underlying layers, make sure to change the **Blend** mode to **Normal**.

f. Define the **Opacity** to set the transparency of the content in the Layer. 100% (fully opaque) is the default.

g. Select a **Blend** mode to determine how the color of overlapping elements will be treated. For example, the "Darken" option will cause elements that overlap on different layers to be combined into a third, darker color.

h. To choose a specific region of the source page, click **Select Region** and define the desired region by clicking the points of the shape or by clicking and dragging a rectangle.

i. The **Position** options allow you to fine tune the layers if they are not perfectly scaled or if they are slightly skewed (please note that while you can manually adjust Layers with these settings, it is generally recommended that you use the

Align Points function described below when possible):

- **Rotation** allows you to rotate the Layer between 0 and 360 degrees.
- **Scale** allows you to make the Layer larger or smaller, where **1.00** is equal to 100% (so, for example, a 75% scale should be entered as **.75** while a 125% scale should be entered as **1.25**).
- **Offset X** & **Y** allows you to move the layer left/right or up/down.

j. Click **OK**.

7. If the drawings are not identical in terms of scale and position on the page (for example, if you are comparing scans or a scaled drawing to an original) you will have to align them. To do so:

   a. Click **Align Points**. A dialog box opens explaining how to align points. Click **OK** to dismiss it.

   b. On the first drawing, click three points that will act as anchor points between the drawings. It is recommended to use points near the edges of the drawing.

   > **Note**: Snap to Content is automatically enabled to help you get a precise definition.

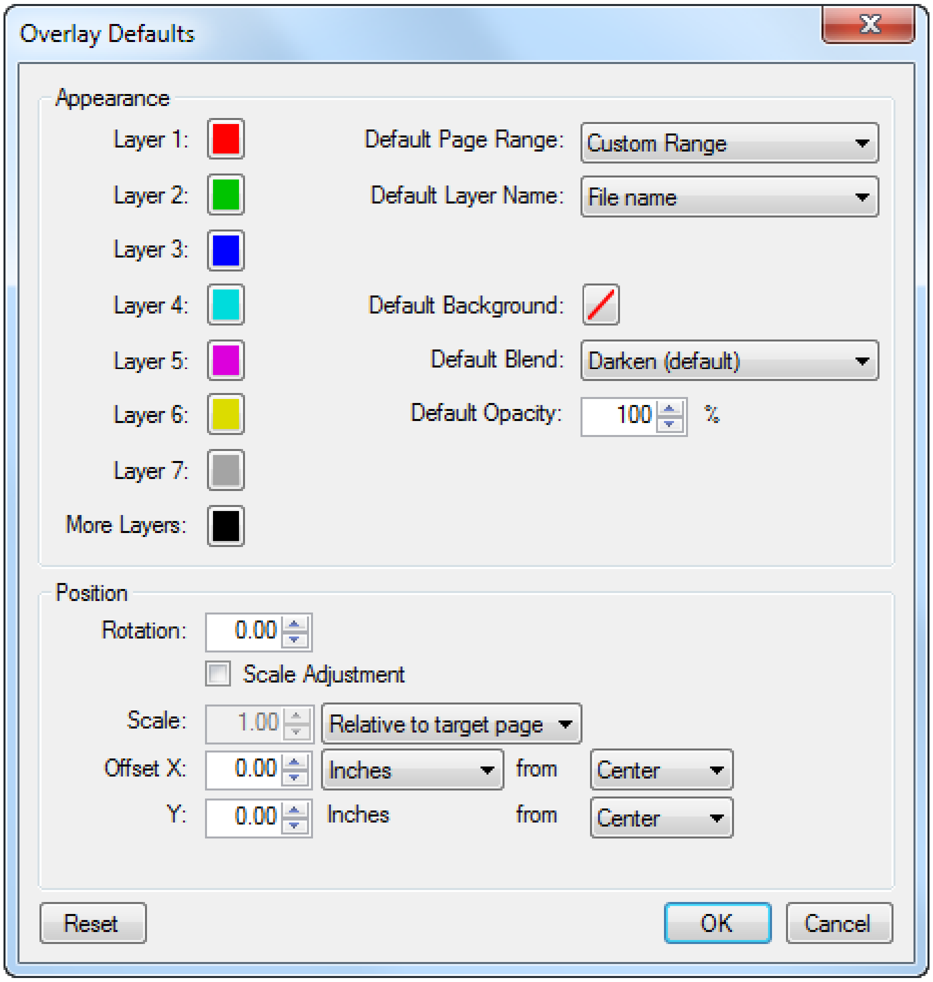
   c. On the second drawing, click the three points that are analogous to the ones you clicked on the first. You must select them in the same order you did in the first. When you've clicked the third point, the **Layers** dialog box reappears.

   d. If you want to redo the alignment, click **Clear Alignment** and start again.

8. Click **OK**. The overlay is created and opened in Revu as a separate PDF.

Editing Default Overlay Settings

The default overlay settings in Revu are changeable. To access the default settings, click **Edit Defaults** from the **Overlay Pages** dialog box. Change any of the available settings, as desired, and click **OK**.



a. **Appearance**: Sets the default line color of Layers 1-7 as well as the default line color for Layers 8+. To change the default line color for a Layer, click the associated color box and select the desired color.

b. **Default Page Range**: Sets the default page range for Layers. Options are: **All Pages** (all pages in the PDF used to create the Layer, if applicable), **Current Page** (current page of the PDF used to create the PDF, if applicable) and **Custom Range** (default).

c. **Default Layer Name**: Determines how the default Layer name is generated. Options are: **File name** (default) and **Merge Existing**.

d. **Default Background**: Set the default background color. The default is transparent. To change the default background color, click the color box and select the desired color.

e. **Default Blend**: Determines how the color of overlapping elements are treated.

f. **Default Opacity**: Sets the transparency of the content in the Layer. Range is from 0% (fully transparent) to 100% (fully opaque).

g. **Position**:

- **Rotation**: Sets the default rotation (in degrees) of the Layer. Range is from 0 to 360.
- **Scale**: Sets the default scale of the Layer, where **1.00** is equal to 100% (so, for example, a 75% scale should be entered as **.75** while a 125% scale should be entered as **1.25**). Select **Scale Adjustment** to enable.
- **Offset X** & **Y**: Sets the default offset position of Layer along the X and/or Y axes.

Batch Slip Sheet

The Batch Slip Sheet feature inserts new page revisions or replaces current pages with new revisions for a group of documents (commonly called "slip sheeting"). It provides several auto-matching options to make pairing up pages to be slip sheeted simpler.

The batch version of Slip Sheet is discussed here. There is also a single-PDF version for replacing pages and a single-PDF version for inserting pages available.

Note: Batch Slip Sheet is available in Revu eXtreme only.

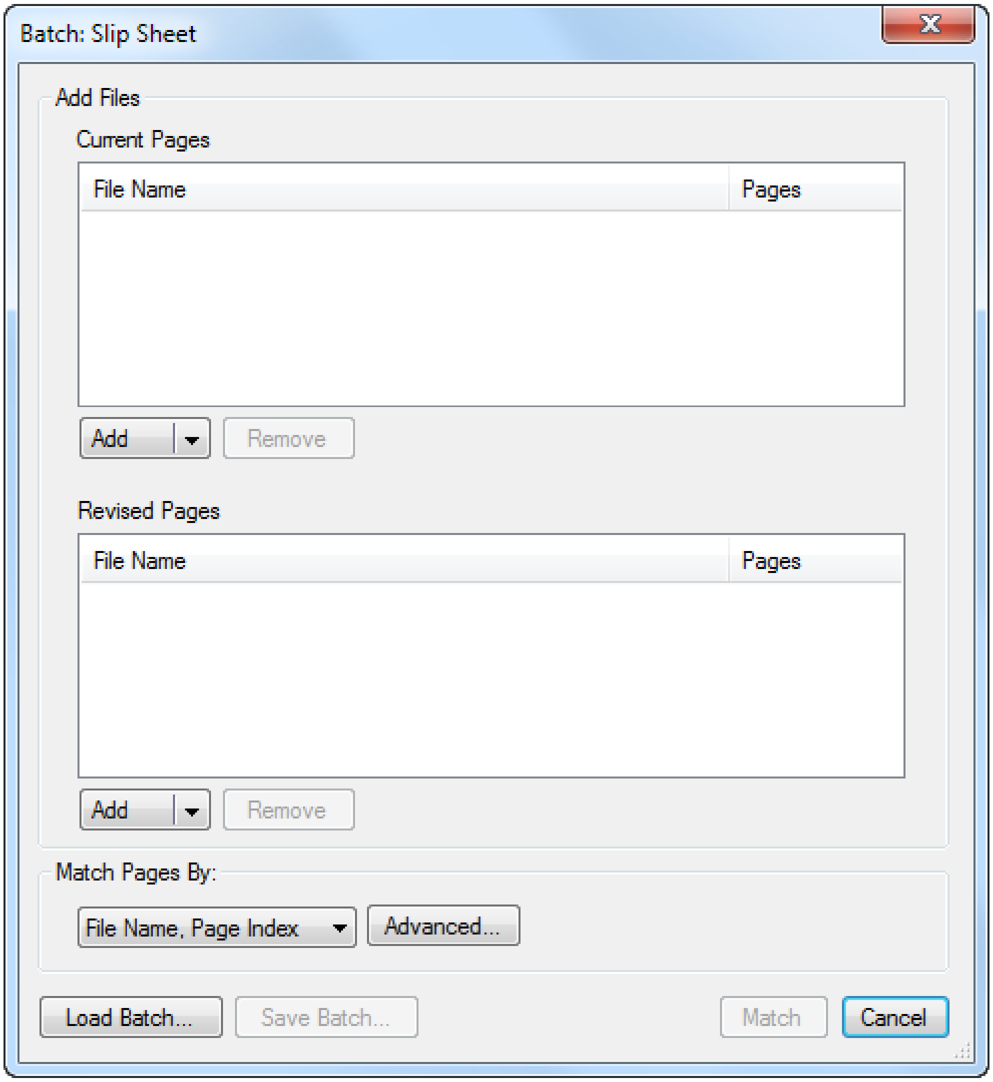
- Slip Sheeting Groups of Documents or Drawings
- Advanced Match Options

Slip Sheeting Groups of Documents or Drawings

PDFs do not need to be open in Revu when the batch process is run. If a document is open in Revu, any changes resulting from the batch process will be made to the document, but the document will not be saved or checked in (if relevant); the user will need to save and check in the document manually. If a document is not open in Revu, and it is not checked out/locked by another user, changes will be applied and saved to the document automatically (without opening the document in Revu).

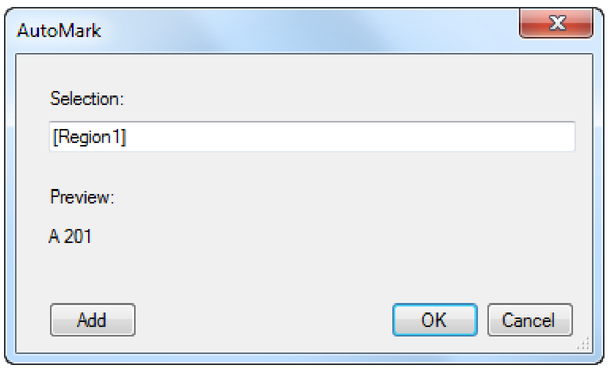
In most cases, Revu's auto-matching function will successfully match current sheets with their revisions, but in the event that a consistent naming convention is in place and the auto-matching function doesn't deliver satisfactory results, users can add their own syntax to the matching algorithm. If that doesn't work, or is not an option, manual correlation is always available.

1. Go to **File** > **Batch** > **Slip Sheet.** The **Batch: Slip Sheet** dialog box appears.



2. Add PDFs to the **Current Pages** and **Revised Pages** lists by selecting the appropriate option from the corresponding **Add** dropdown menus:
   - **Add Files**: Select this option to navigate to the desired files on either a local or network drive. This is the default option and is invoked when **Add** is clicked.
   - **Add Open Files**: Select this option to add all PDFs currently open in Revu that are not already included in either group.
   - **Add Folder**: Select this option to add all PDFs in a selected folder, but none of the PDFs in any of its subfolders.
   - **Add Folder (include subfolders)**: Select this option to add all PDFs in a selected folder as well as the PDFs in any of its subfolders.

3. Select the method by which these documents should be matched from the **Match Pages By** dropdown menu:
    - **File Name, Page Index**: Automatically matches documents by file name, then by page index.
    - **Page Label**: Automatically matches documents using predefined page labels.
    - **Page Region**: Uses the text found within user-defined regions of the first PDF listed in the **Current Pages** list to automatically match documents. To define the page region:
        A. Click **Select**. The dialog box disappears, replaced with a crosshair cursor.
        B. Click and drag to define a region on the PDF. Generally speaking, the data in this region should be located in the same place on each PDF. When the region has been defined, the **AutoMark** dialog box appears.



        C. To add another region, click **Add**. The **AutoMark** dialog box disappears, replaced with a crosshair cursor again. Click and drag to define another region. The **AutoMark** dialog box reappears with the new region added to the **Selection** field. There is no limit to the number of regions that can be added.
            - Review the sample page label, as shown under **Preview**. If desired, click in the **Selection** field to add text before, after or between **[Regions]**.

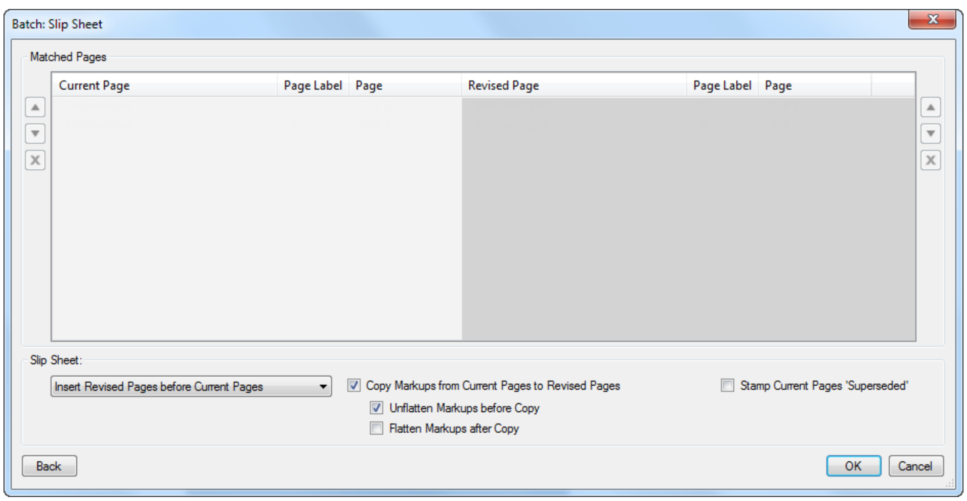
        D. When all regions have been defined, click **OK**. The **AutoMark** dialog box closes, replaced by the previous dialog box.

Note: AutoMark is most suitable for documents that are vector-based, are the same size and have the same registration. AutoMark might not work as expected if the pages are different sizes, if some of the pages are not searchable or if the scans are not properly registered.

- **Manual Correlation**: Skips the auto-matching process. Select this option to match documents manually on the next screen.

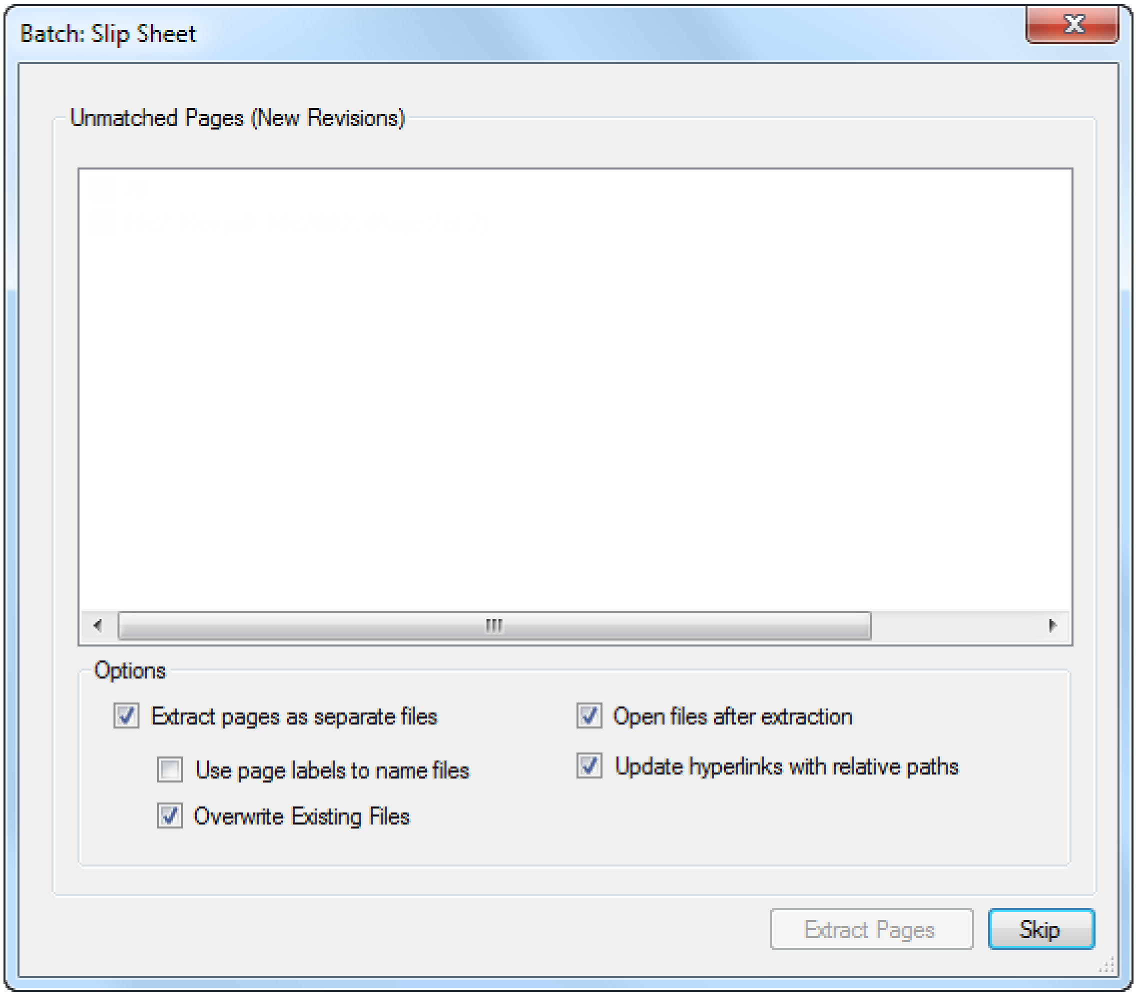
Note: Pages must be matched to be included in the next part of the process. If one of the auto-matching options is selected and matches cannot be found for one or more pages, they will not be included. This does not apply to **Manual Correlation**, which carries all pages forward.

4. For each of the **Match Pages By** options except **Manual Correlation**, you can define an advanced filter for more control over the auto-matching process. To do so, click **Advanced** and enter the desired Match Filter. See Advanced Match Options for more information.
5. At this point, you might want to save this batch for future use. To do so, click **Save Batch**. Files are saved in a BCX format and can be opened later by Batch Compare, Batch Overlay and Batch Slip Sheet.
6. Click **Match**. The appropriate matching process is run (as determined by the **Match Pages By** selection above) and the **Batch: Slip Sheet – Match Pages** dialog box appears.



7. Pages are arranged in matched pairs; pages in the same row are considered "paired" and will be compared. To move a page to a different row (and pair it with a different page), select it and use the associated ▲ and ▼ buttons.
8. To remove a page from either list, select it and click ✖.
9. To return to the previous screen, click **Back**.

10. Select the desired slip sheeting method from the **Slip Sheet** dropdown menu:
    - **Insert Revised Pages before Current Pages**: Inserts the new pages in front of the corresponding current page.
    - **Replace Current Pages with Revised Pages**: Replaces the current pages with the corresponding new pages.
11. Select the desired slip sheeting options, as available:
    - **Copy Markups from Current Pages to Revised Pages**: Select this option to copy the current page's markups over to the new revision.
        - **Unflatten Markups before Copy**: Select this option to unflatten any flattened markups on the current pages before performing the copy.
        - **Flatten Markups after Copy**: Select this option to flatten markups on the new pages after performing the copy.
    - **Stamp Current Pages 'Superseded'** (Insert Revise Pages only): Select this option to automatically stamp the current pages as having been superseded.
12. Click **OK**. If there were any unmatched drawings left on the previous screen (for example, if one page of a pair was deleted and the other was not matched to another page), the **Batch: Slip Sheet – Unmatched Pages** dialog box appears. If there were no unmatched drawings, the **Batch: Slip Sheet – Summary** dialog box appears; skip to the next step.



- On the **Batch: Slip Sheet – Unmatched Pages** dialog box you have the option to extract new drawings discovered during the Batch Slip Sheet process. If you would prefer to not extract any of these drawings, click **Skip** and proceed to the next step. Otherwise:
    - A. Select the pages you would like to extract from the **Unmatched Pages** list.
    - B. Select any of the available options, as desired:
        - **Extract Pages as Separate Files**: Select to create a one-page PDF for each page extracted from the current PDF.
            - **Use Page Label to Name Files**: Select to use the page label in the name of the individual PDFs.

Note: This option should not be used if the page labels contain any characters that Windows considers invalid for use in file names, including \ / : * ? " < > |

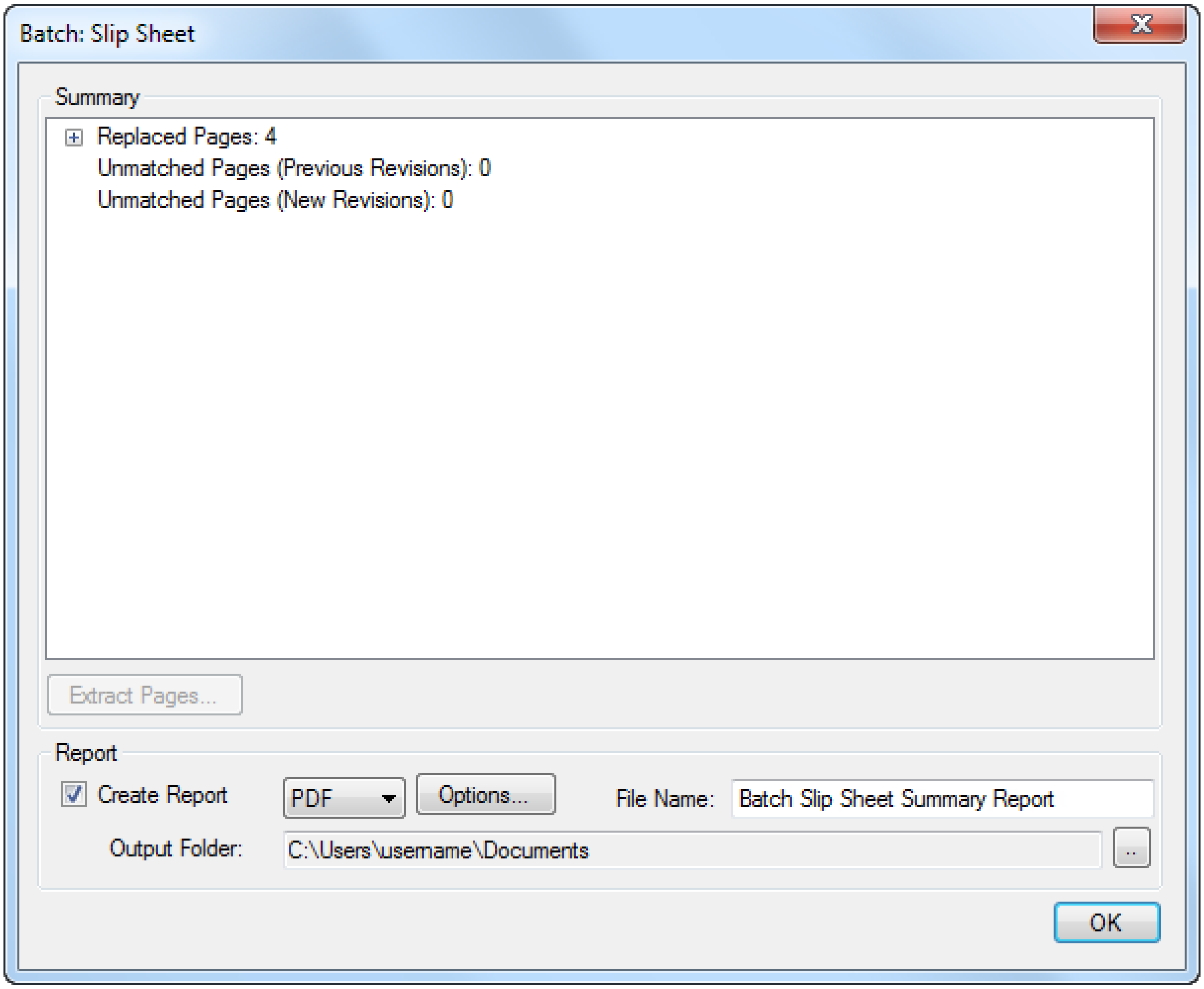
- **Overwrite Existing Files**: Overwrites any existing files of the same name in the save location.

- **Open Files After Extraction**: Select to open the newly created PDFs in the current session of Revu as separate document tabs.
- **Update hyperlinks with relative paths**: Select to automatically update hyperlinks contained in extracted pages with relative paths. Otherwise, full paths are used.

C. Click **Extract Pages**. The Select folder to extract files to dialog box appears.

D. Select the folder into which you would like to save the extracted files and click **Select Folder**.

13. Once the Batch Slip Sheet process is completed, the **Batch: Slip Sheet - Summary** dialog box appears.



14. Review the **Summary** information provided, which includes which pages were slip sheeted with which pages.

15. To generate a report of the **Summary** information:

    A. Select **Create Report**.

    B. Select either **PDF** or **CSV** from the corresponding dropdown menu.

    C. Enter a name for the report in the **File Name** field.

    D. To change the folder in which the report will be saved, click the  to the right of **Output Folder** and select the desired folder.

    E. Click **Options** to set additional reporting options. The options available vary depending on what kind of report is being generated:

    PDF

    - **Create Hyperlinks**: When enabled, the report will include hyperlinks to the current, revised, and unmatched pages.

- **Stamp Date** and **Stamp Time**: When enabled, adds that information to the footer of the comparison report.
- **Save Report Automatically**: When enabled, automatically saves a copy of the report in your Documents folder.
- **Overwrite Existing File**: When enabled, if an existing file with the same file name is present in the save location, it will be automatically overwritten.
- **Open File After Creation**: When enabled, the report automatically opens after creation.
- **Page Size** and **Orientation**: Sets the page size and orientation of the comparison report.

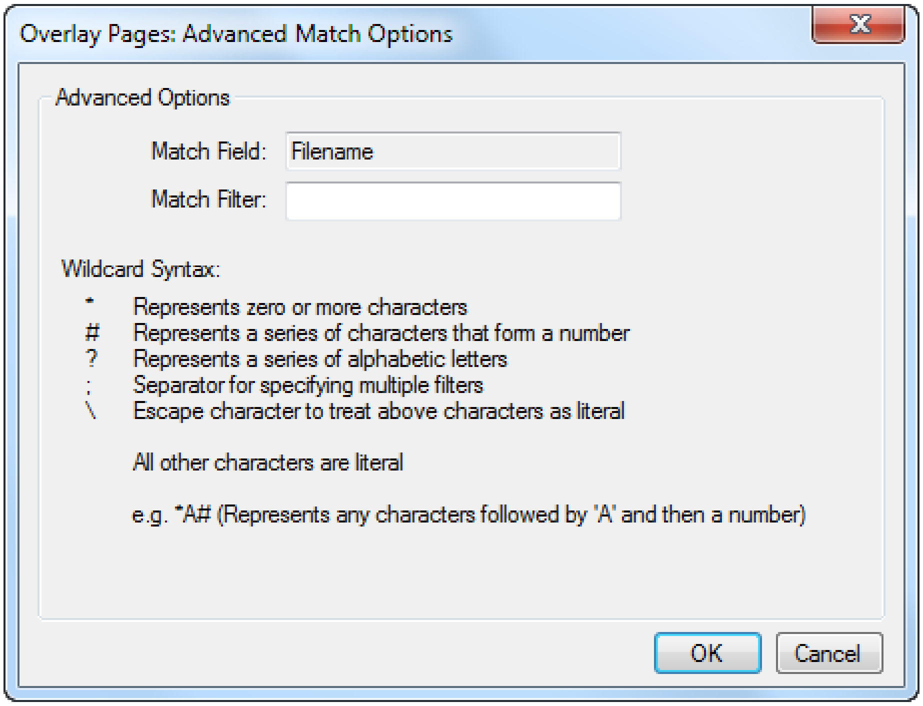
CSV

- **Include Hyperlinks**: When enabled, the report will include hyperlinks to the current, revised, and unmatched pages.
- **Include Column Headers**: When enabled, the file will include automatically generated column headers in the comparison report.
- **Overwrite Existing File**: When enabled, if an existing file with the same file name is present in the save location, it will be automatically overwritten.
- **Open File After Creation**: When enabled, the report automatically opens after creation.

16. Click **OK**.

Advanced Match Options

Advanced Match Options lets you define a custom Match Filter that is used to precisely match pages during the auto-match process.



Wildcard Syntax:

*	Represents zero or more characters that are not a number
#	Represents a series of characters that form a number
;	Separator for specifying multiple filters
?	Represents a series of alphabetic letters
\	Escape character to treat above characters as literal

All other characters are literal.

Note: An assumed * wildcard always precedes the string. For instance, A#;C# is implied as *A#;*C#.

Note: A space is considered a literal character. Do not include a space after the semicolon or else the filter will take that space into account as well.

Batch Compare Documents

The Batch Compare Documents feature compares groups of documents to each other and highlights the differences between them, which are indicated with markups that can be reviewed easily using the Markups list. It provides several auto-matching options to make pairing up pages to be compared simpler. By default, only the content layers of the PDFs are compared; to include markups in a comparison, turn on that option in Advanced Comparison Options.

The batch version of Compare Documents is discussed here. There is also a non-batch version of Compare Documents.

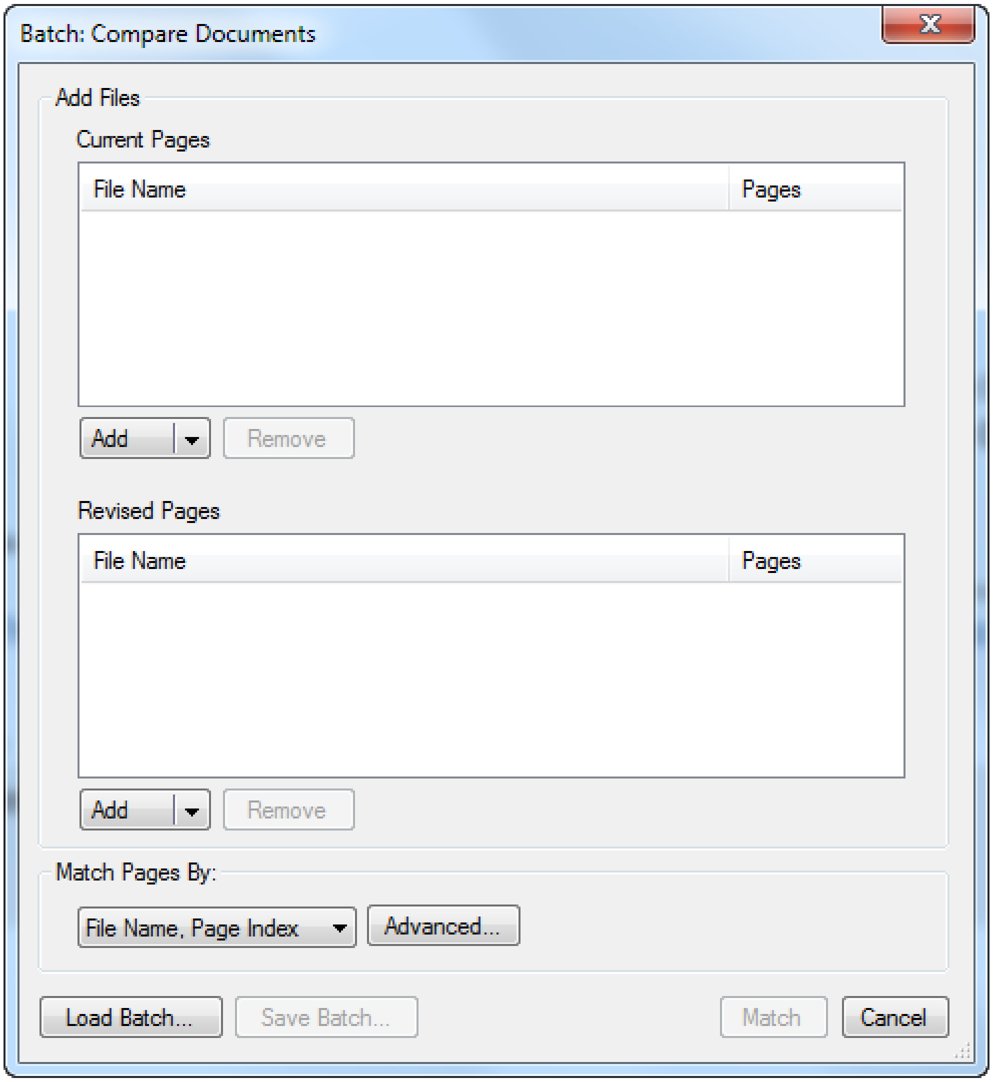
- Comparing Groups of Documents or Drawings
- Advanced Match Options
- Advanced Comparison Options

Comparing Groups of Documents or Drawings

PDFs do not need to be open in Revu when the batch process is run. If a document is open in Revu, any changes resulting from the batch process will be made to the document, but the document will not be saved or checked in (if relevant); the user will need to save and check in the document manually. If a document is not open in Revu, and it is not checked out/locked by another user, changes will be applied and saved to the document automatically (without opening the document in Revu).

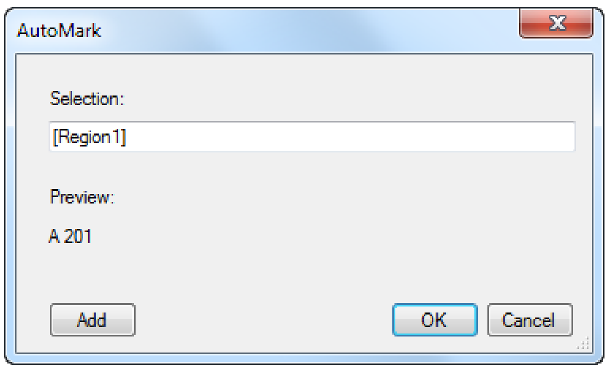
In most cases, Revu's auto-matching function will successfully match current sheets with their revisions, but in the event that a consistent naming convention is in place and the auto-matching function doesn't deliver satisfactory results, users can add their own syntax to the matching algorithm. If that doesn't work, or is not an option, manual correlation is always available.

1. Go to **File** > **Batch** > **Compare Documents**. The **Batch**: **Compare Documents** dialog box appears.



2. Add PDFs to the **Current Pages** and **Revised Pages** lists by selecting the appropriate option from the corresponding **Add** dropdown menus:
   - **Add Files**: Select this option to navigate to the desired files on either a local or network drive. This is the default option and is invoked when **Add** is clicked.
   - **Add Open Files**: Select this option to add all PDFs currently open in Revu.
   - **Add Folder**: Select this option to add all PDFs in a selected folder, but none of the PDFs in any of its subfolders.
   - **Add Folder (include subfolders)**: Select this option to add all PDFs in a selected folder as well as the PDFs in any of its subfolders.
3. Select the method by which these documents should be matched from the **Match Pages By** dropdown menu:

- **File Name, Page Index**: Automatically matches documents by file name, then by page index.
- **Page Label**: Automatically matches documents using predefined page labels.
- **Page Region**: Uses the text found within user-defined regions of the first PDF listed in the **Current Pages** list to automatically match documents. To define the page region:
    A. Click **Select**. The dialog box disappears, replaced with a crosshair cursor.
    B. Click and drag to define a region on the PDF. Generally speaking, the data in this region should be located in the same place on each PDF. When the region has been defined, the **AutoMark** dialog box appears.

    C. To add another region, click **Add**. The **AutoMark** dialog box disappears, replaced with a crosshair cursor again. Click and drag to define another region. The **AutoMark** dialog box reappears with the new region added to the **Selection** field. There is no limit to the number of regions that can be added.
        - Review the sample page label, as shown under **Preview**. If desired, click in the **Selection** field to add text before, after or between **[Regions]**.

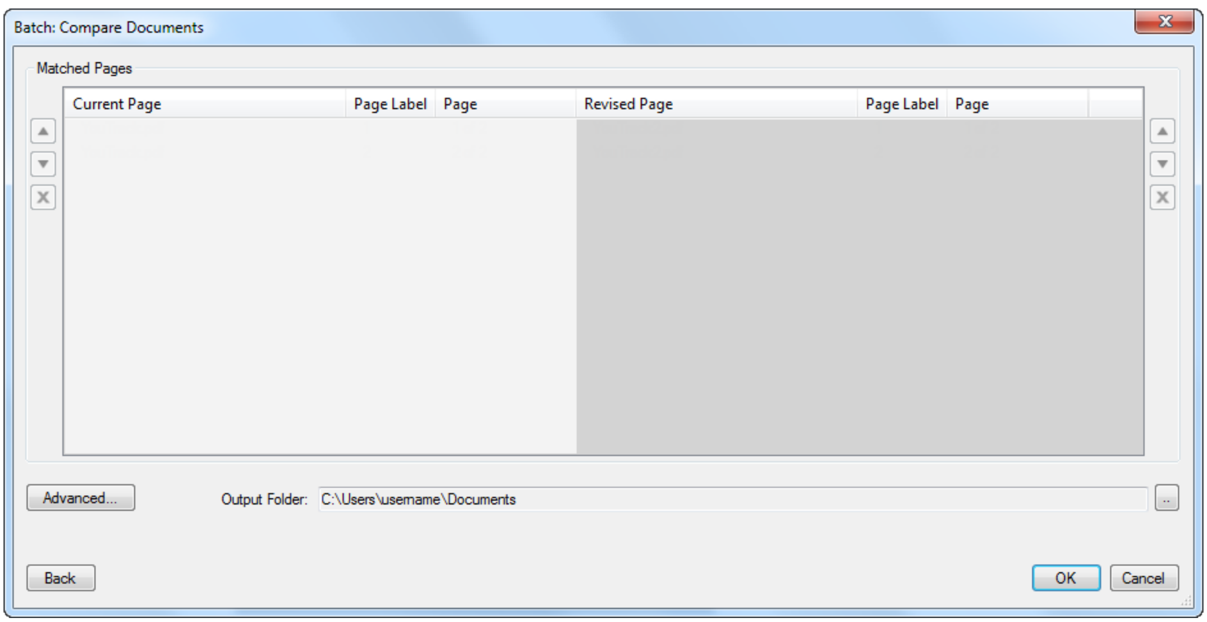
    D. When all regions have been defined, click **OK**. The **AutoMark** dialog box closes, replaced by the previous dialog box.

    Note: AutoMark is most suitable for documents that are vector-based, are the same size and have the same registration. AutoMark might not work as expected if the pages are different sizes, if some of the pages are not searchable or if the scans are not properly registered.

- **Manual Correlation**: Skips the auto-matching process. Select this option to match documents manually on the next screen.

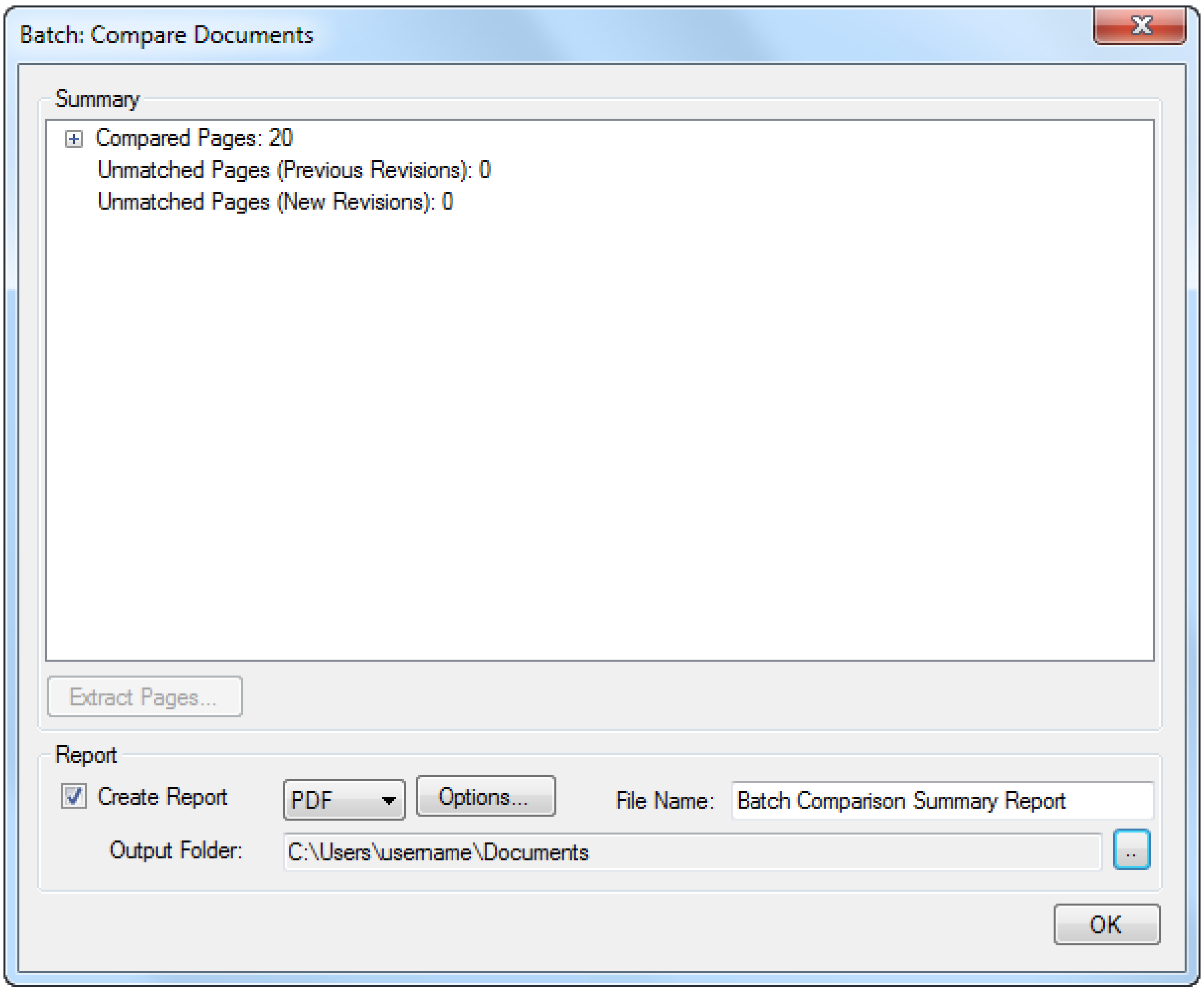
Note: Pages must be matched to be included in the next part of the process. If one of the auto-matching options is selected and matches cannot be found for one or more pages, they will not be included. This does not apply to **Manual Correlation**, which carries all pages forward.

4. For each of the **Match Pages By** options except **Manual Correlation**, you can define an advanced filter for more control over the auto-matching process. To do so, click **Advanced** and enter the desired Match Filter. See Advanced Match Options for more information.
5. At this point, you might want to save this batch for future use. To do so, click **Save Batch**. Files are saved in a BCX format and can be opened later by Batch Compare, Batch Overlay and Batch Slip Sheet.
6. Click **Match**. The appropriate matching process is run (as determined by the **Match Pages By** selection above) and the next screen of the **Batch: Compare Documents** wizard appears.



7. Pages are arranged in matched pairs; pages in the same row are considered "paired" and will be compared. To move a page to a different row (and pair it with a different page), select it and use the associated and buttons.
8. To remove a page from either list, select it and click .
9. To change the comparison settings, click **Advanced**. See Advanced Comparison Options for more information.

10. To change the folder in which the comparison documents will be saved, click the [...] to the right of **Output Folder** and select the desired folder.
11. To return to the previous screen, click **Back**.
12. Click **OK**. The next screen of the **Batch: Compare Documents** wizard appears.
    - If **Manual Correlation** was selected as the **Match Pages By** option on the previous screen and one or more pages are not paired, they are automatically discarded.



13. Review the **Summary** information provided, which includes the pages that were compared, the number of differences found, and the name of the comparison document that was created for each page pair.
14. To generate a report of the **Summary** information:
    A. Select **Create Report**.
    B. Select either **PDF** or **CSV** from the corresponding dropdown menu.

C. Enter a name for the report in the **File Name** field.

D. To change the folder in which the report will be saved, click the  to the right of **Output Folder** and select the desired folder.

E. Click **Options** to set additional reporting options. The options available vary depending on what kind of report is being generated:

PDF

- **Create Hyperlinks**: When enabled, the report will include hyperlinks to the current, revised, and unmatched pages and to the marked up PDF that highlights the differences between them.
- **Stamp Date** and **Stamp Time**: When enabled, adds that information to the footer of the comparison report.
- **Save Report Automatically**: When enabled, automatically saves a copy of the report in your Documents folder.
- **Overwrite Existing File**: When enabled, if an existing file with the same file name is present in the save location, it will be automatically overwritten.
- **Open File After Creation**: When enabled, the report automatically opens after creation.
- **Page Size** and **Orientation**: Sets the page size and orientation of the comparison report.

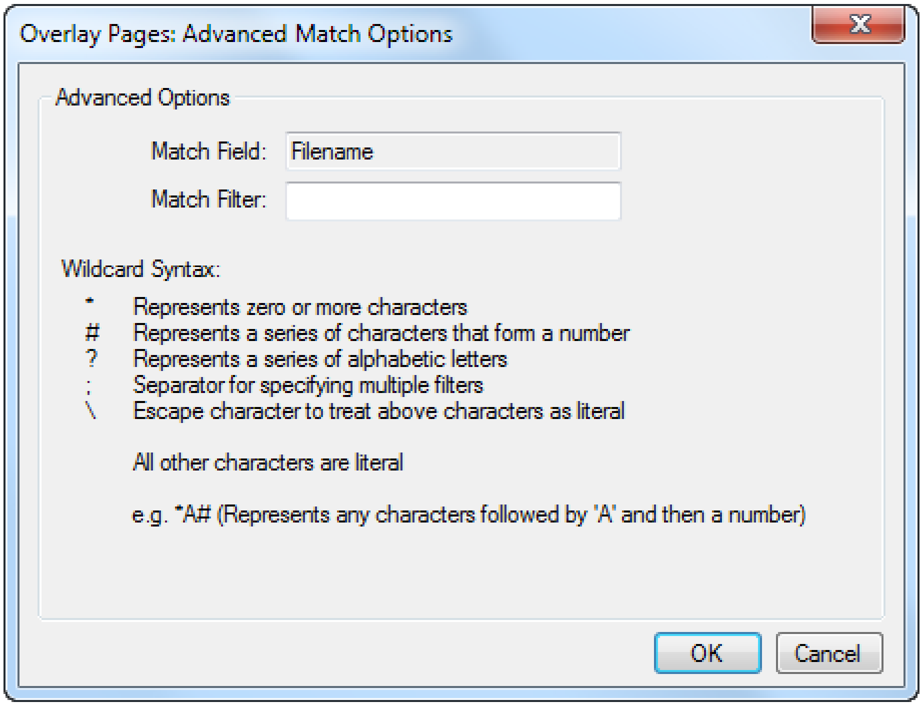
CSV

- **Include Hyperlinks**: When enabled, the report will include hyperlinks to the current, revised, and unmatched pages.
- **Include Column Headers**: When enabled, the file will include automatically generated column headers in the comparison report.
- **Overwrite Existing File**: When enabled, if an existing file with the same file name is present in the save location, it will be automatically overwritten.
- **Open File After Creation**: When enabled, the report automatically opens after creation.

15. Click **OK**.

Advanced Match Options

Advanced Match Options lets you define a custom Match Filter that is used to precisely match pages during the auto-match process.



Wildcard Syntax:

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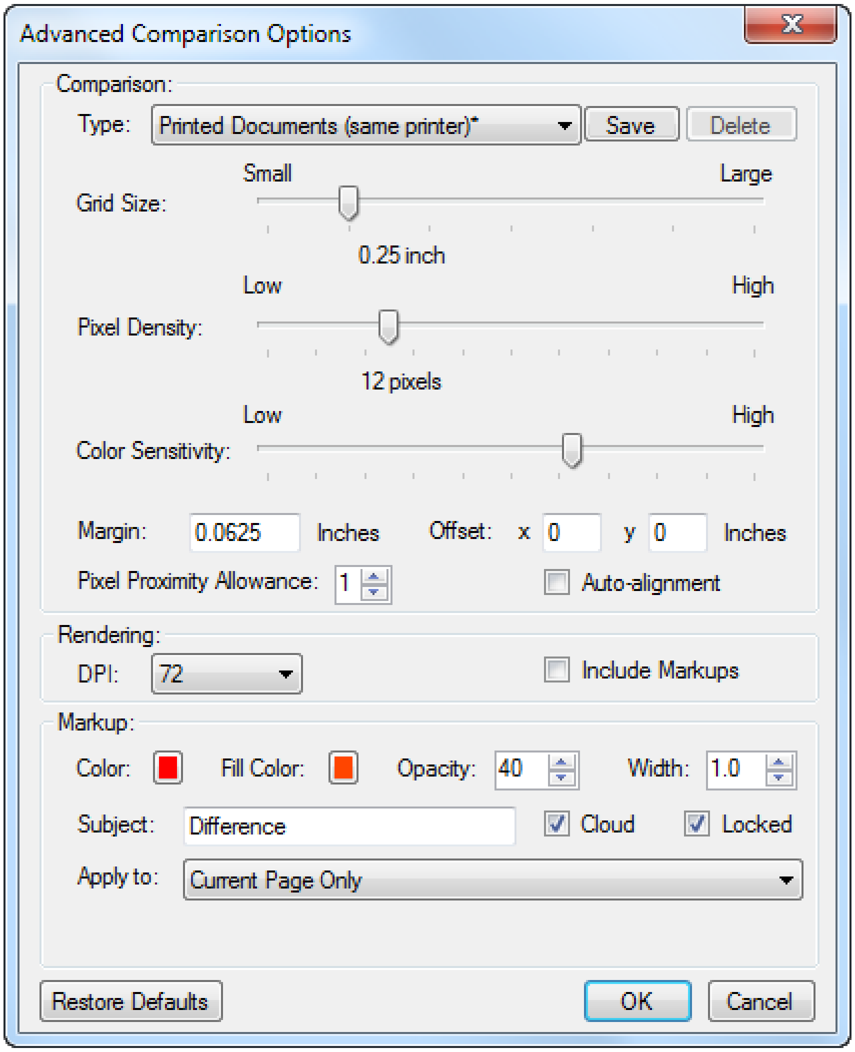
All other characters are literal.

Note: An assumed * wildcard always precedes the string. For instance, A#;C# is implied as *A#;*C#.

Note: A space is considered a literal character. Do not include a space after the semicolon or else the filter will take that space into account as well.

Advanced Comparison Options

Use the Advanced Comparison Options to fine-tune the document comparison process. It is recommended that you use the default **Comparison** and **Rendering** settings provided and change these settings only if the document comparison process does not appear to detect differences.



Three default comparison **Types** are provided: **Printed Documents (same printer)**, **Printed Documents (different printer)** and **Scanned Documents**. Each **Type** has pre-configured Comparison settings. You can change the settings of any of the default **Types** or create a custom **Type** by selecting <**New Custom**>. The Advanced Comparison Options are:

Comparison Options

- The comparison process breaks the document into a region of grids for comparison. **Grid Size** defines the size of the individual grid segments used for comparison. These regions are then inspected for different pixels to identify as a differing region.
- **Pixel Density** controls the threshold amount of differences in a particular area (defined by the **Grid Size**) when detecting differences.
- **Color Sensitivity** helps to determine the threshold at which pixel differences will be determined. A lower sensitivity setting will not detect as many differences as a higher sensitivity setting.

    - This setting works in conjunction with the **Pixel Proximity Allowance**. Increase this value to check adjoining areas for similar pixels.
- Set the **Margin** value to ignore regions around the borders of the PDFs being compared.
- Enter values in the **Offset** setting if you know one document is offset from the document that is being compared. Likewise, you may check **Auto-alignment** to instruct Revu to automatically align the drawings or documents that are being compared. Auto-alignment is recommended for comparing scanned drawings.

Rendering Options

- **Rendering DPI** determines the resolution used to rasterize the PDFs. The default setting is 72. Set the value higher (144) if finer resolution is needed for the comparison.
- By default, the comparison tool ignores existing markups on the documents, since these can already be easily located via the Markups list. Check **Include Markups** to override this behavior and render markups for comparison.

Markup Options

- Determine the appearance of the markups that will be used to annotate differences found during the comparison by setting the **Color**, **Fill Color**, **Opacity** and **Width**. If cloud markups should be used, check **Cloud**.
- If the annotations should be locked when they are placed, check **Locked**.
- Enter a name for the difference annotations (for example, “Differences 5-7-14”) in the **Subject** field, if desired. This makes it easy to group the difference annotations together on the Markups list by sorting by Subject. A series of difference comparisons can be made over time to provide a change history.
- Select which document the difference annotations should be added to from the **Apply to** dropdown list. If one of the "New copy" options is selected, a new document containing the difference annotations will be created based on the indicated document. Otherwise, the difference annotations will be added to the selected document(s).

If you change a value in a default comparison **Type**, its name is marked with an asterisk (*).

To change the settings of the current type permanently, click **Save**. The **Save Document Comparison Settings** dialog box will open. Enter a name for this configuration. If you are changing the settings of a default **Type**, its name will be auto-populated; you can save it under the default name or change it, creating a new type.

To restore the included types to their default settings, click **Restore Defaults**.

Working with Sets

Sets allows users to open a collection of documents in a single view with the pages organized in a specified sorted order, including any revisions and addenda. Users can navigate through multiple files as though they were one document without actually merging them into a single file. Additionally, files that normally cannot be combined due to PDF security or digital signatures can be viewed as a cohesive collection.

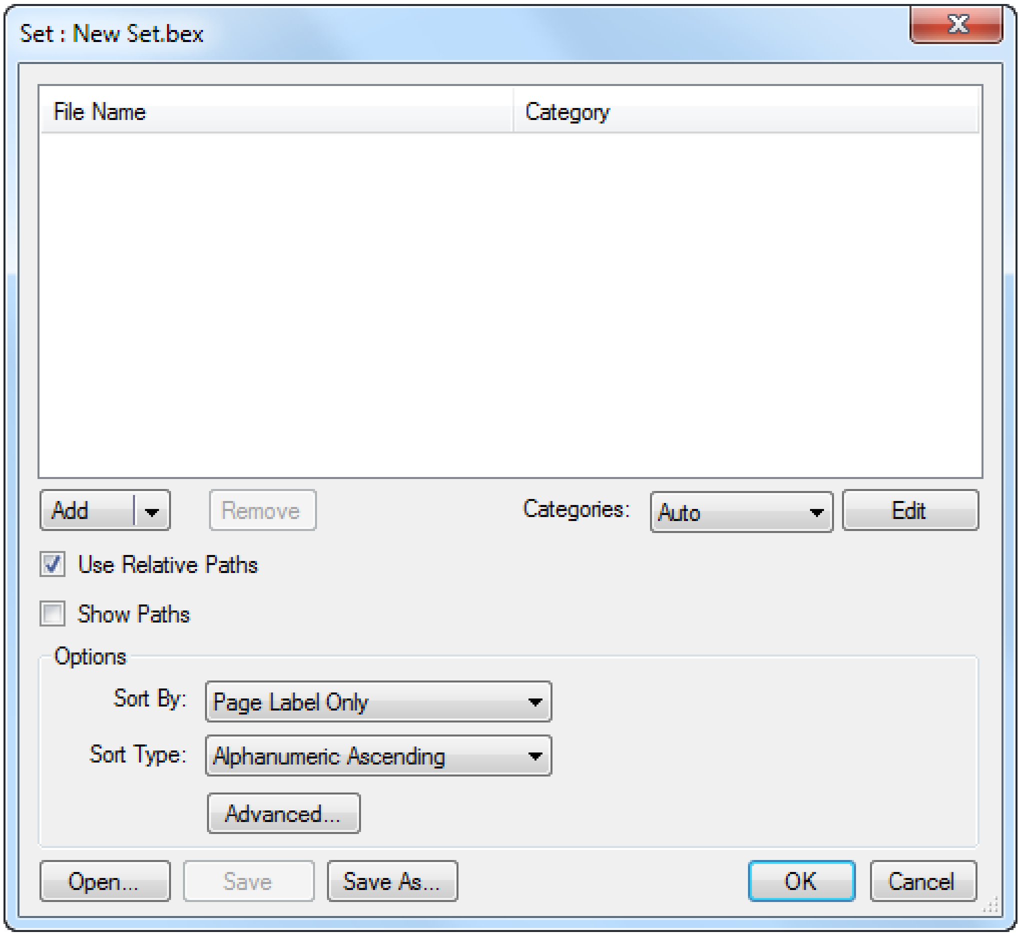
Note: Sets underwent a major upgrade with Revu 2015, including the introduction of Sets Categories, automatic revision matching, and a caching system to improve responsiveness. Sets created in Revu 2015 or greater can be opened in Revu versions 11 through 12.6, but they will not benefit from all of these improvements. Further, if a Set is created in Revu 2015 and is later opened and saved in one of these earlier versions of Revu, any Sets Categories that were set up will be lost.

- Creating a Set
- Batch Compare and Overlay in a Set
- Printing a Set
- Navigating Sets

Creating a Set

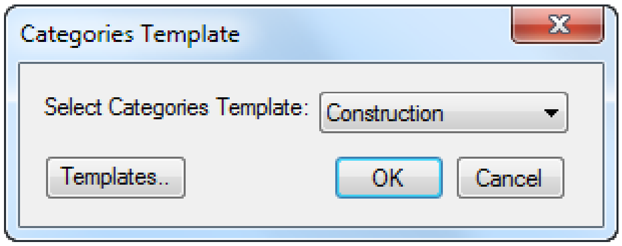
To create a new Set:

1. Go to **View** > **Tabs** > **Sets** or press ALT+2 to show the **Sets** tab.
2. Click the **Modify Set** button or select **New Set** from the **Modify Set** dropdown menu. The **Set: New Set** dialog box appears.



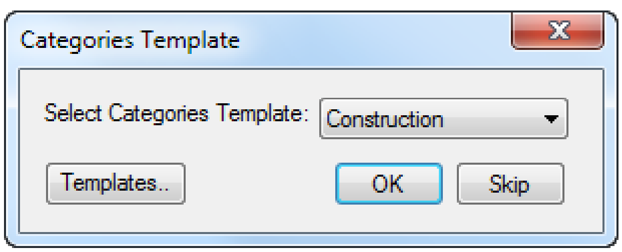
3. By default, **Categories** will be set to the **Default Mode** set up in Sets Preferences. Select a different mode, if desired.
   - **Off**: Select to turn off Set categories.
   - **Manual**: Select to manually assign categories to PDFs added to the Set.
   - **Auto**: Select to have Revu automatically assign categories to PDFs added to the Set.
4. Select one of the following methods to add PDFs to the Set from the **Add** dropdown menu:
   - **Add Files**: Select this option to navigate to the desired files on either a local or network drive. This is the default option and is invoked when **Add** is clicked.
   - **Add Open Files**: Select this option to add all PDFs currently open in Revu.
   - **Add Folder**: Select this option to add all PDFs in a selected folder, but none of the PDFs in any of its subfolders.
   - **Add Folder (include subfolders)**: Select this option to add all PDFs in a selected folder as well as the PDFs in any of its subfolders.

5. What happens next depends on the **Categories** setting.
    - When **Categories** = **Off**, proceed to Step 5 below.
    - When **Categories** = **Auto**:
        a. The **Categories Templates** dialog box appears.



> **Note**: If this dialog box does not appear, the **Display templates prompt for categories** option is not selected in Sets Preferences and the default category (as determined by **Default Mode** in Sets Preferences) is used automatically. Proceed to Step 5 below.

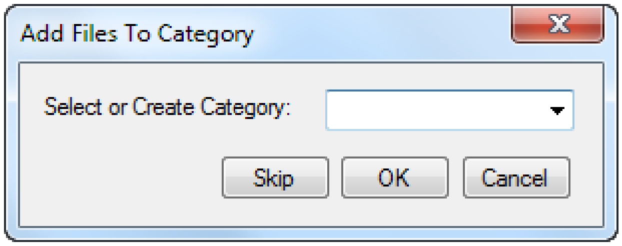
        b. To skip sorting for this Set, click **Cancel** and proceed to Step 5 below.
        c. To modify an existing template or import a new one, click **Templates**.
        d. To sort PDFs added to this Set according to an existing template, select it from the **Select Categories Template** dropdown menu and click **OK**.
    - When **Categories** = **Manual**:
        a. The **Categories Templates** dialog box appears.



> **Note**: If this dialog box does not appear, the **Display templates prompt for categories** option is not selected in Sets Preferences and the default category (as determined by **Default Mode** in Sets Preferences) is used automatically. Proceed to Step e below.

        b. To skip sorting for this Set, click **Skip** and proceed to Step 5 below.
        c. To modify an existing template or import a new one, click **Templates**.
        d. To sort PDFs added to this Set according to an existing template,

select it from the **Select Categories Template** dropdown menu and click **OK**. The **Add Files to Category** dialog box appears.



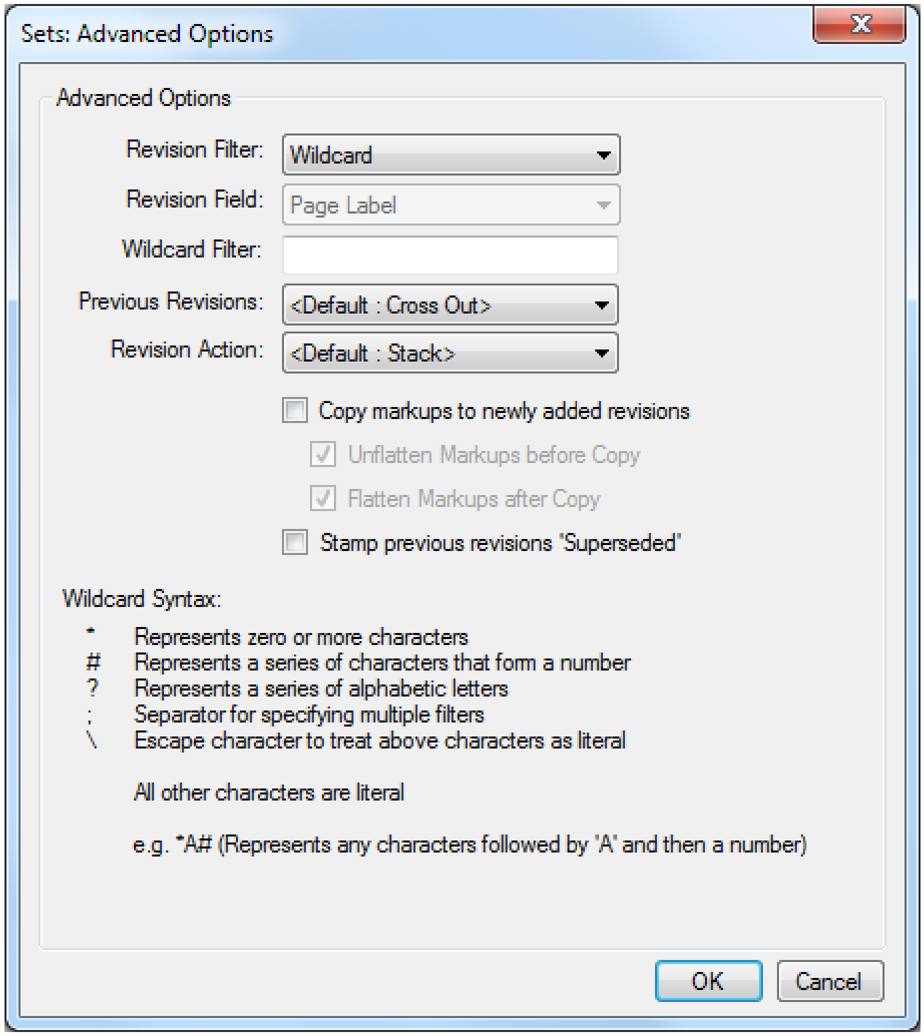
e. Select a category into which the PDFs should be sorted from the **Select or Create Category** dropdown menu and click **OK**.

6. To change a PDF's category, right-click it and select the desired category from the list that appears.
7. To remove a PDF from the Set list, select it and click **Remove**.
8. Enable or disable **Use Relative Paths**, as desired.

> **Note**: If this Set is going to be saved, enabling **Use Relative Paths** is recommended.

9. Enable or disable **Show Paths**, as desired. When enabled, the full path to the documents is shown. When disabled, only the documents' names are shown.
10. The default **Sort By** and **Sort Type** settings are carried in from Sets Preferences. Change either or both of these, if desired.
11. In most cases, Revu's revision filter will match set revisions automatically, provided common, recognizable naming conventions are used. To use custom revision filters and actions:

a. Click **Advanced**. The **Sets: Advanced Options** dialog box appears.



b. Set the desired options. The default values for these options can be configured in Sets Advanced Preferences.

Revision Filter: Filters can be applied to a Set if the file naming convention supports a revision strategy. Select the type of revision filter to be used. Options include:

- **Auto**: Revu will automatically determine the revision naming strategy by analyzing the file names in the Set and apply appropriate filters. So long as the file naming convention is consistent, this option should work in most cases.
- **Wildcard**: Uses the wildcards defined in the **Wildcard Filter** field (below).

- **Off**: Turns off the use of revision filters, but saves the current configurations (they just go unused so long as this option is set).

Revision Field: Selections available here are determined by the **Sort By** selection made in the **Set: New Set** dialog box. If the Set is being sorted by a single field, this option will be grayed out. Otherwise, select the field that the **Revision Filter** (above) will be applied to.

Wildcard Filter: Consult the **Wildcard Syntax** notes on the dialog box for assistance in using wildcards in the filter. This field is only available when **Revision Filter** (above) is set to **Wildcard**.

Previous Revisions: Select an option to determine how previous revisions of documents will be displayed in this Set.

- **Hide**: Hides any previous revisions when viewing a Set.
- **Gray Out**: Grays out any previous revisions.
- **Cross Out**: Crosses out any previous revisions.
- **Show**: Shows previous revisions in the Set and the workspace.

Revision Action: Select an option to determine how revisions will be displayed in this Set.

- **Highlight**: Places a highlighted border around the outline of the thumbnail.
- **Stack**: Stacks revisions on top of each other and places a blue arrow on the thumbnail, which can be clicked to see the revisions.

Copy markups to newly added revisions: When enabled, Revu copies the unflattened markups from current revisions over to their new revisions.

Unflatten Markups before Copy: Select this option to unflatten any flattened markups on the current pages before performing the copy.

Flatten Markups after Copy: Select this option to flatten markups on the new pages after performing the copy.

Stamp previous revisions 'Superseded': When enabled, Revu applies a "Superseded" stamp to the PDF of previous revisions, informing users who view the PDF—even outside the Set—that a new revision exists.

c. Click **OK**.

12. Click **OK**.

Batch Compare and Overlay in a Set

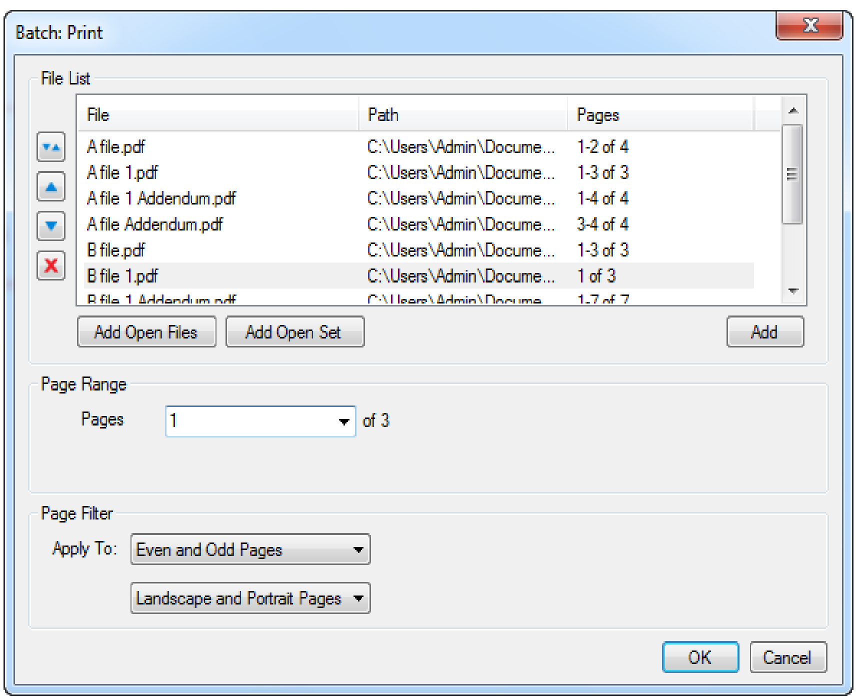
You can access the Batch Compare and Batch Overlay features directly from within your Set and run either against drawing revisions. To do so, simply right-click one of the revisions and select either **Batch Compare** or **Batch Overlay**, as desired. The selected feature will be called with the revisions automatically matched.

Printing a Set

To print a Set:

1. Go to **View** > **Tabs** > **Sets** or press ALT+2 to show the **Sets** tab.
2. Click **Print Set** to print the Set pages that are currently selected, or select a page grouping to be printed from the **Print Set** dropdown menu.
    - **Print All**: Prints all pages from all files in the Set, including all addenda.
    - **Print Latest Revisions**: Prints the latest revision of each page in the Set. Pages that have no revisions are selected (as the original page is the latest revision).
    - **Print Previous Revisions**: Prints only the previous revision pages in the Set. Pages that have no revisions are not selected.

    Once a selection is made, the **Batch**: **Print** dialog box opens with the selected page grouping loaded.

3. If desired, set a **Page Range** for one or more of the documents. Select the desired

document in the file list and select one of the following:

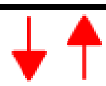
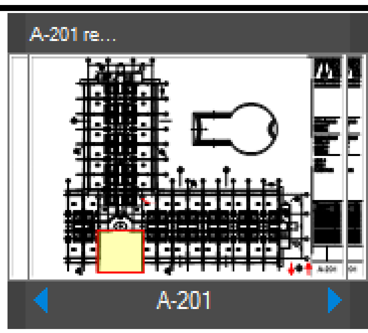
- **All Pages**: Sets the range to all pages.
- **Selected**: Sets the range to the current selection. This option only appears if pages were selected prior to invoking the command.
- **Custom**: Sets the range to a custom value. When this option is selected the list becomes a text box. To enter a custom range:
    - Use a dash between page numbers to define those two pages and all pages in between.
    - Use a comma to define pages that are separated.

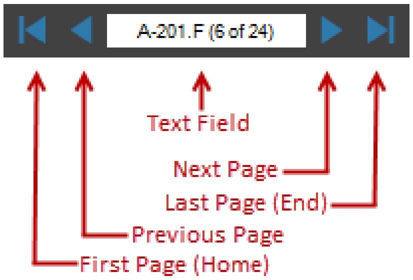
    For example: 1-3, 5, 9 will include pages 1, 2, 3, 5 and 9.

4. If desired, apply one or both of the **Page Filters** to further refine which pages are printed. From the **Apply To** menus, select among **Even Pages Only**, **Odd Pages Only** or **Odd and Even Pages** and among **Landscape Pages**, **Portrait Pages** or **Landscape and Portrait Pages.** These selections work in conjunction to form the filter, so any pages to be processed must meet both criteria selected.
5. Click **OK**. The **Print** dialog box opens.

Navigating Sets

There are some navigation tool behaviors specific to Sets:

	**Hyperlinks**: When viewing a document that is in a Set, and when that Set is open, clicking a hyperlink that points to another document in the Set will automatically open the latest revision of the document.
 Thumbnail View mode  List View mode	**Navigation Arrows for Stacked Revisions**: When viewing a Set that is configured to stack revisions (in the Sets: Advanced Options dialog box), a set of blue navigation arrows are provided to make scrolling through revisions easier.



Navigation Bar: When a Set is open, certain elements of the Navigation bar automatically adapt to the Set list. Clicking either the **Next Page** or **Previous Page** arrow automatically opens the next or previous document in the Set list (if the document has multiple revisions, the latest revision is automatically targeted). Similarly, the **First Page (Home)** and **Last Page (End)** buttons automatically open the first or last document in the Set (again, if there are multiple revisions of the targeted document, the latest revision is opened). Finally, the **text field** will show the name and position of the Set document that is currently open. Entering a query in the text field will locate the corresponding Set document, favoring the latest revision.

Keyboard shortcuts	
	HOME: Press to jump to the first document in the Set. END: Press to jump to the last document in the Set. CTRL+LEFT ARROW: Press to jump to the next page in the Set CTRL+RIGHT ARROW: Press to jump to the previous page in the Set.

Measurement Tools, Take-offs, and Estimation

Measure Tool

The Measure tool creates measurements in any of several measurement modes. Measurements can persist as markups, allowing for processing and summarization through the Markups list, which is useful for estimation and takeoffs, or be temporary, which is useful for quickly measuring and adding up measurements without creating a visual record on the PDF.

When the Measure Tool is activated, the last measurement mode used is automatically selected. This makes it easier to employ your most commonly used measurement mode.

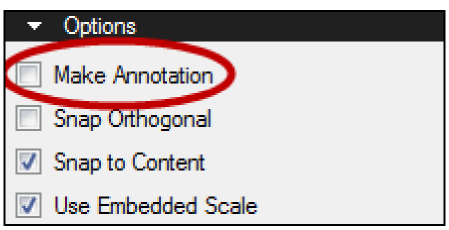
- Taking a Temporary Measurement
- Placing a Measurement Markup (Takeoff)

Taking a Temporary Measurement

Temporary measurements are often used for quick measurements or to add up several measurements without leaving a visual record on the PDF.

Before measuring, always be sure the document is properly calibrated.

1. Go to **Measure** > **Measure Tool**. The **Measurements** tab becomes active and the most recently used measurement mode is enabled.
2. If desired, change the measurement mode on the Measurements tab toolbar.
3. In the **Options** section of the **Measure** tab, ensure **Make Annotation** is **not** checked.



4. Now make the measurement (for details on how to perform Length, Area, Perimeter, Diameter, Angle, Radius (either Center-out or Three-point methods), Volume, and Count measurements, please see the sections dedicated to each of those modes).

The measurement will appear as a dotted blue line along with the value. The **Measurements** section of the **Measurements** tab will show the value of the current measurement as well as a running total of measurements taken so far.

Placing a Measurement Markup (Takeoff)

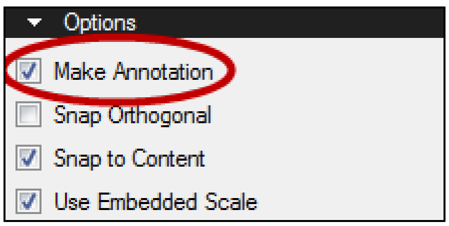
Measurements can be left on the PDF as markups, allowing you to measure many items on the same document and process the results in a variety of ways later, including through the

Markups list.

For more information about using the Measurement tool for takeoffs, see Takeoffs and Measuring.

Before measuring, always be sure the document is properly calibrated.

1. Go to **Measure** > **Measure Tool**. The **Measurements** tab becomes active and the most recently used measurement mode is enabled.
2. If desired, change the measurement mode on the Measurements tab toolbar.
3. In the **Options** section of the **Measurements** tab, ensure **Make Annotation** is checked.



4. Now make the measurement (for details on how to perform Length, Area, Perimeter, Diameter, Angle, Radius (either Center-out or Three-point methods), Volume, and Count measurements, please see the sections dedicated to each of those modes).

The measurement will appear as a markup and show up in the Markups list. The **Properties** tab will allow you to change the look and label of the resulting markup.

Length Measurement

The Length measurement tool places specialized markups that calculate a single, linear measurement. For the cumulative length of a multi-segment line, see Perimeter Measurements.

As with any measurement, be sure to calibrate the document first.

Taking a Length Measurement

1. Go to **Measure** > **Linear** > **Length** or press SHIFT+ALT+L. The **Length** measurement mode is engaged.
    - Alternatively, click **Length** on the Measurements tab.
2. Click the end points of the desired length.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Length measurement arrows will automatically position themselves inside 

the extension lines when there is enough room, otherwise they will automatically position themselves outside 

the extension lines.

Adding an Action to a Length Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Length Measurement

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **resize the markup or change its angle**, click and drag the appropriate yellow handle. Hold down SHIFT while dragging to force the markup to a horizontal, vertical, or 45° angle.

To **adjust the height of the markup**, click and drag the middle (caption) control handle.

To **move only the caption**, click and drag it while holding down SHIFT.

To **move the entire markup together**, click and drag a part of it other than the control handles.

To **rotate the caption**, click and drag the orange handle directly over it. By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.To return a rotated caption to its original position, right-click it and select **Reset Caption Position**.

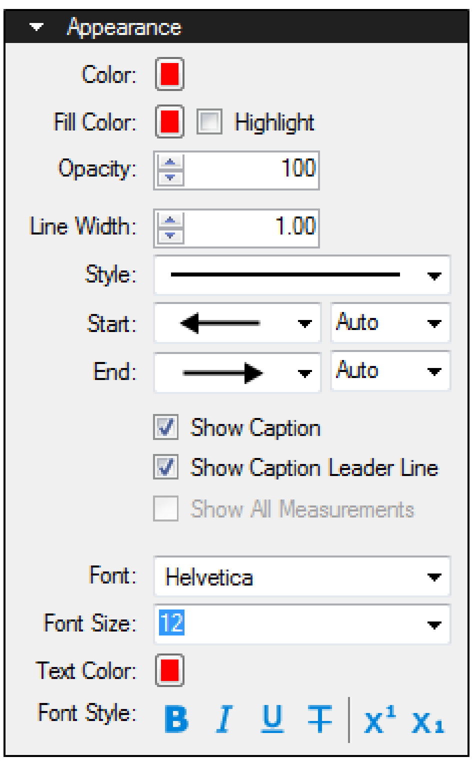
- To **rotate the caption 180°**, right-click the markup and select **Flip Text**.

Changing a Length Measurement's Appearance

The appearance of the Length measurement is configurable, including its line and fill color, line width and style, opacity, and font characteristics for the caption.

To change the appearance of a Length measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Controls the fill color of the endpoints.

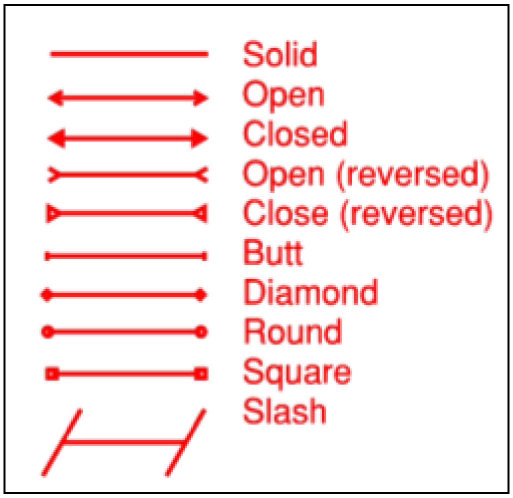
Highlight: Makes the fill color and line transparent so underlying content shows through.

Opacity: Sets opacity level of the line and endpoints, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line.

Style: Determines the pattern of the line segment.

Start and **End**: Controls the appearance of the endpoints for each side of the line. The diagram below shows samples of each type of endpoint.



Each endpoint has an associated **Scale** that determines the size of the endpoint in relation to the **Line Width**. By default, it is set to **Auto** and will automatically adjust as the **Line Width** is changed.

Show Caption: Select to include the caption text on the markup.

Show Caption Leader: Select to show the leader line to the caption.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, Strikethrough, Superscript and Subscript. Generally, any combination of these styles can be applied to format the text.

Perimeter Measurement

The Perimeter measurement tool places specialized markups that calculate the length of all sides of a given shape or of a multi-segment line. Perimeter measurements can appear to be similar to Area Measurements, but they are not closed shapes; even when they are created such that their start and end points touch, they are always treated as open shapes.

As with any measurement, be sure to calibrate the document first.

- Taking a Perimeter Measurement
    - Working with the Control Points and Curves
- Adding an Action to a Perimeter Measurement
- Resizing or Adjusting a Perimeter Measurement
- Changing a Perimeter Measurement's Appearance
    - Appearance Properties

Taking a Perimeter Measurement

1. Go to **Measure** > **Linear** > **Perimeter** or press SHIFT+ALT+P. The **Perimeter** measurement mode is engaged.
    - Alternatively, click **Perimeter** on the Measurements tab.
2. In the **Measurements** section of the **Measurements** tab, the **Depth** field becomes active. This allows for the additional calculation of Wall Area on the Markups list, if desired. Enter the desired value and select the units of measure from the associated menu.
3. Click on each point of the desired shape.
    - To remove the last control point, press BACKSPACE.
4. To "close" the shape, do one of the following:
    - Click the first point again.
    - Press C on the keyboard to automatically close the shape by connecting the last point placed to the first point placed.

> **Note**: Even though their start and end points can touch, Perimeters are always considered open shapes and will behave as such. For a closed shape measurement, see Area Measurement.

5. To complete the shape without "closing" it, do one of the following:
    - Press ENTER after placing the last point.
    - Double-click when placing the last point.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Click and drag to place a rectangular shape.
    - Holding down SHIFT while doing so will force the rectangle into a square.

Working with the Control Points and Curves

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Adding an Action to a Perimeter Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Perimeter Measurement

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **rotate the caption**, click and drag the orange handle directly over it. By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.To return a rotated caption to its original position, right-click it and select **Reset Caption Position**.

To **move only the caption**, click and drag it while holding down SHIFT.

To **move the entire markup together**, click and drag a part of it other than the control handles.

To **resize a line or change its angle**, click and drag the appropriate yellow handle.

- Hold down CTRL while dragging a yellow control handle to curve the lines attached to it.

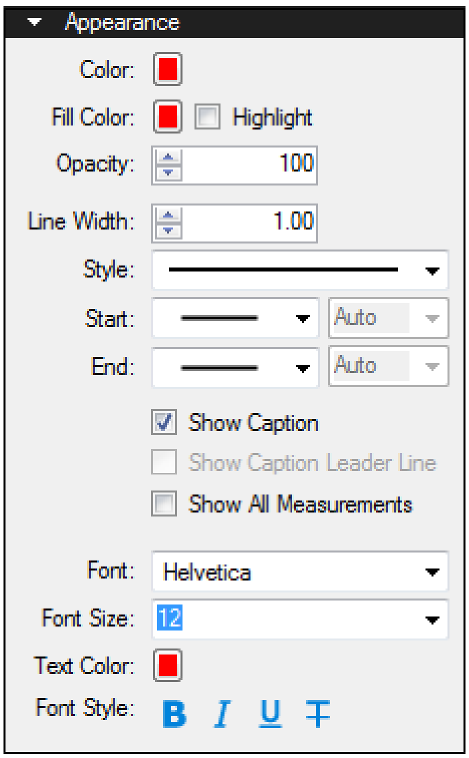
To **scale the markup up or down**, click and drag the appropriate purple handle.

Changing a Perimeter Measurement's Appearance

The appearance of the Perimeter measurement is configurable, including line color, style, width, and opacity, as well as the font style of the caption and whether or not to show it.

To change the appearance of a Perimeter measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Controls the fill color of the endpoints.

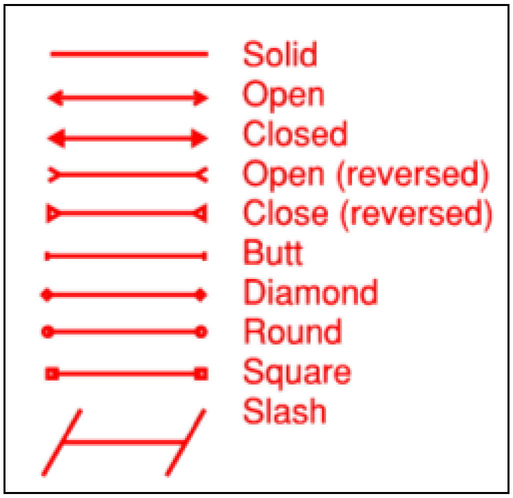
Highlight: Makes the fill color and line transparent so underlying content shows through.

Opacity: Sets opacity level of the line and endpoints, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line.

Style: Determines the pattern of the line segment.

Start and **End**: Controls the appearance of the endpoints for each side of the line. The diagram below shows samples of each type of endpoint.



Each endpoint has an associated **Scale** that determines the size of the endpoint in relation to the **Line Width**. By default, it is set to **Auto** and will automatically adjust as the **Line Width** is changed.

Show Caption: Select to include the caption text on the markup.

Show All Measurements: Select to include all measurements applicable to the markup, not just the default measurement.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, and Strikethrough. Generally, any combination of these styles can be applied to format the text.

Area Measurement

The Area measurement tool places specialized markups that calculate the area of a polygonal shape. Area measurements are always closed shapes; for an open-shaped polygonal measurement, see Perimeter Measurement. For a similar markup without the measurement, see the Polygon Tool.

Area measurements can have cutouts taken out of them, if needed.

As with any measurement, be sure to calibrate the document first.

Taking an Area Measurement

1. Go to **Measure** > **Area** or press SHIFT+ALT+A. The **Area** measurement mode is engaged.
    - Alternatively, click **Area**on the Measurements tab.
2. In the **Measurements** section of the **Measurements** tab, the **Depth** field becomes active. This allows for the additional calculation of Wall Area on the Markups list, if desired. Enter the desired value and select the units of measure from the associated menu.
3. Click on each point of the desired shape.
    - To remove the last control point, press BACKSPACE.
4. To close the shape, do one of the following:
    - Press ENTER or C after placing the last point.
    - Double-click when placing the last point.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Click and drag to place a rectangular shape.
    - Holding down SHIFT while doing so will force the rectangle into a square.

Working with the Control Points and Curves

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Adding an Action to an Area Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting an Area Measurement

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **rotate the caption**, click and drag the orange handle directly over it. By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.To return a rotated caption to its original position, right-click it and select **Reset Caption Position**.

To **move only the caption**, click and drag it while holding down SHIFT.

To **move the entire markup together**, click and drag a part of it other than the control handles.

To **resize a line or change its angle**, click and drag the appropriate yellow handle.

To **scale the markup up or down**, click and drag the appropriate purple handle.

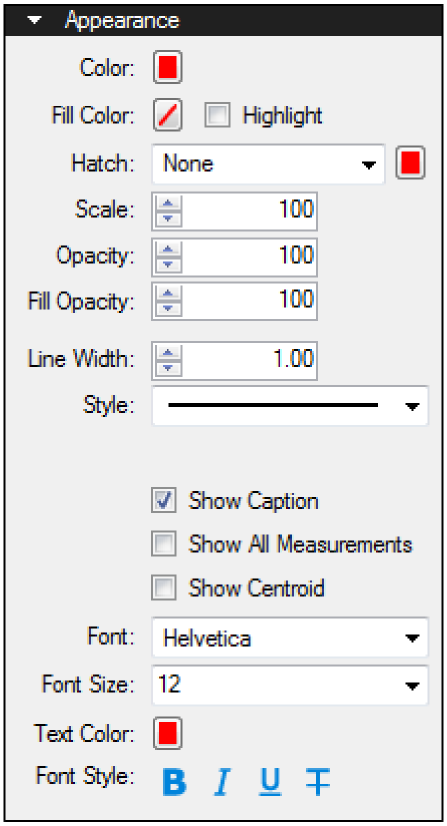
- Rectangular and square markups do not have purple handles. To scale these markups up or down, hold down CTRL while dragging one of the yellow handles at any of the corners.

Changing an Area Measurement's Appearance

The appearance of the Area measurement is configurable, including line and fill color, hatch pattern, line width and style, opacity, plus the font style of the caption and whether or not to show it.

To change the appearance of an Area measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Select to include the caption text on the markup.

Show All Measurements: Select to include all measurements applicable to the markup, not just the default measurement.

Show Centroid: Select to show the geometric center of the shape. If necessary, the caption will be automatically adjusted to be below the centroid.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, and Strikethrough. Generally, any combination of these styles can be applied to format the text.

Volume Measurement

The Volume measurement tool places specialized markups that calculate the volume of a polygonal or a curved shape. Volume is measured in a unit appropriate to the calibrated scale of the document and not necessarily the unit of measure of markup's depth (which can be different). For example, if the document has been calibrated to feet and the depth of the markup has been specified to be inches, the volume will be expressed in cubic feet.

Volume measurements can have cutouts taken out of them, if needed.

As with any measurement, be sure to calibrate the document first.

- Taking a Volume Measurement
    - Working with the Control Points and Curves
- Adding an Action to a Volume Measurement
- Resizing or Adjusting a Volume Measurement
- Changing a Volume Measurement's Appearance
    - Appearance Properties

Taking a Volume Measurement

1. Go to **Measure** > **Volume** or press SHIFT+ALT+V. The **Volume** measurement mode is engaged.
    - Alternatively, click **Volume** on the Measurements tab.
2. In the **Measurements** section of the **Measurements** tab, the **Depth** field becomes active. Enter the desired value and select the units of measure from the associated menu.
3. Click on each point of the desired shape.
    - To remove the last control point, press BACKSPACE.
4. To close the shape, do one of the following:
    - Press ENTER or C after placing the last point.
    - Double-click when placing the last point.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Click and drag to place a rectangular shape.
    - Holding down SHIFT while doing so will force the rectangle into a square.

A control point defines where two line segments meet in multi-segment markups. Control points can be added or removed from these markups.

Further, the line segments of these markups can be converted to curves or arcs at their control points, allowing them to conform to nearly any shape.

Adding an Action to a Volume Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Volume Measurement

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **rotate the caption**, click and drag the orange handle directly over it. By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.To return a rotated caption to its original position, right-click it and select **Reset Caption Position**.

To **move only the caption**, click and drag it while holding down SHIFT.

To **move the entire markup together**, click and drag a part of it other than the control handles.

To **resize a line or change its angle**, click and drag the appropriate yellow handle.

To **scale the markup up or down**, click and drag the appropriate purple handle.

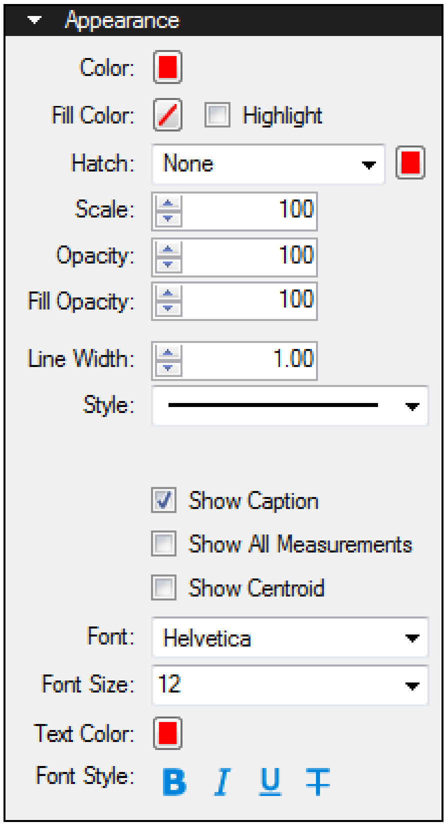
- Rectangular and square markups do not have purple handles. To scale these markups up or down, hold down CTRL while dragging one of the yellow handles at any of the corners.

Changing a Volume Measurement's Appearance

The appearance of the Volume measurement is configurable, including line and fill color, hatch pattern, line width and style, opacity, plus the font style of the caption and whether or not to show it.

To change the appearance of a Volume measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Select to include the caption text on the markup.

Show All Measurements: Select to include all measurements applicable to the markup, not just the default measurement.

Show Centroid: Select to show the geometric center of the shape. If necessary, the caption will be automatically adjusted to be below the centroid.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, and Strikethrough. Generally, any combination of these styles can be applied to format the text.

Count Tool

The Count tool places a markup for each mouse click, associating a running total of counts with each markup as it is placed. It is somewhat similar to Sequences in the Tool Chest, except that it places a pre-configured (and usually less obtrusive) symbol on the PDF and keeps a running tally, per page, of each item counted, whereas Sequences count on the PDF, do not keep a running tally, and treat each markup placed separately rather than grouping them by page in the Markups List.

Counting Objects in a PDF

1. Go to **Measure** > 123 **Count** or press SHIFT+ALT+C. The **Count** measurement mode is engaged.
   - Alternatively, click 123 **Count** on the Measurements tab.
2. Select the **Properties** tab and set the Count measurement's appearance, if desired.
   - Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.
3. Click each object in the PDF to be counted.
4. Press ESC after placing the last Count markup to stop counting.

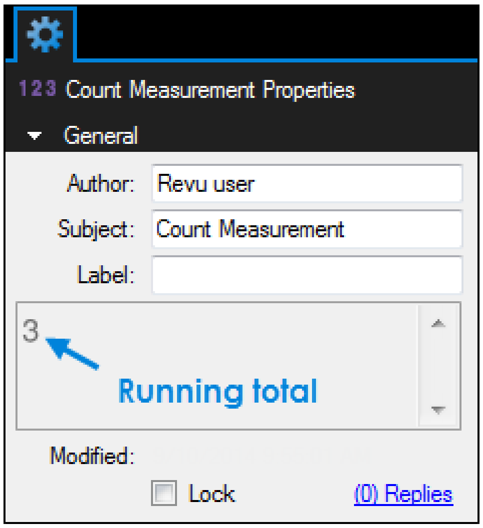
Viewing a Running Total

In multi-page PDFs, Count measurement groups are automatically split up by page. You can easily view the running total of Count measurements on any page of PDF by doing the following:

1. Select a one of the desired Count markups on the PDF.
2. The total number of Count markups on the current page is shown in the **Comments** column of the Markups list (see Count Markups and the Markups list below for an

example) and in the **Comments** field in the **General** section of the Properties tab (see the figure below for an example).

> **Tip**: When Count groups span multiple pages of a PDF, giving each of the groups the same, easily identifiable **Subject** on the **Properties** tab will make it easier to get a total across those pages; just sort the Markups list by subject.



Resuming a Count

Once a series of Count markups has been placed, starting a new Count will create a separate series. Sometimes, however, it is desirable to continue an existing Count. To do so:

1. Right-click any of the markups in the desired Count series and select **Resume Count**.
2. Click on the PDF to resume counting.

Deleting an Item from a Count

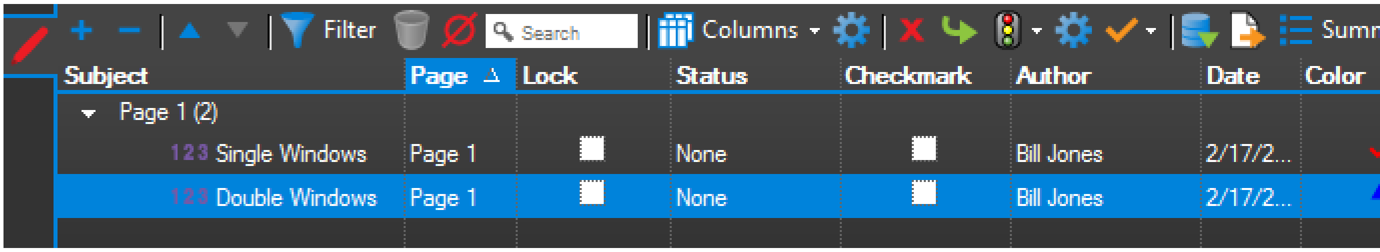
Individual Count measurements can be removed from a Count series, if desired. To do so, right-click on the markup in the Count series that you want to remove and select **Delete '<*count name*>' from Group**. The Count will be renumbered automatically.

Adding an Action to a Count Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Count Measurements and the Markups List

Running totals for Counts appear in the **Comments** column of the Markups list. In addition, the style of the Count measurement is shown in the **Color** column.



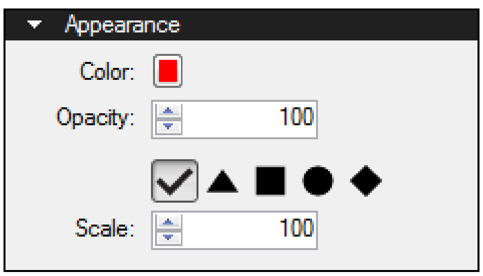
Note that Count measurement groups are automatically split up by page. Giving each of the groups the same, easily identifiable **Subject** on the **Properties** tab will make it easier to get a total across multiple pages; just sort the Markups list by **Subject**.

Changing a Count Measurement's Appearance

The appearance of a Count measurement is configurable, including the symbol used as well as its color, scale, and opacity.

To change the appearance of a Count measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the color of the Count symbol.

Opacity: Sets the opacity of the Count symbol from 0 (invisible) to 100 (opaque).

Symbol: Determines the symbol placed on the PDF to represent the Count.

Scale: Sets the size of the Count symbol.

Diameter Measurement

The Diameter measurement tool places specialized markups that calculate the diameter of a circular shape.

As with any measurement, be sure to calibrate the document first.

Taking a Diameter Measurement

1. Go to **Measure** > **Geometric** > **Diameter** or press SHIFT+ALT+D. The **Diameter** measurement mode is engaged.
    - Alternatively, click **Diameter** on the Measurements tab.
2. Click and drag along the diameter of the circle.

Tips:

- Hold CTRL and click and drag a markup that has already been placed to automatically make a copy of it.

Adding an Action to a Diameter Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Diameter Measurement

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **rotate the caption**, click and drag the orange handle directly over it. By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.To return a rotated caption to its original position, right-click it and select **Reset Caption Position**.

To **move the entire markup together**, click and drag a part of it other than the control handles.

To **scale the markup up or down**, click and drag the appropriate yellow handle.

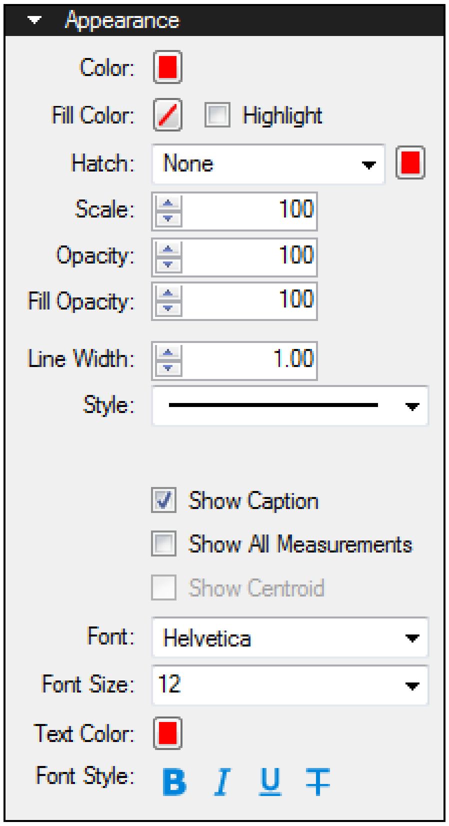
- Use one of the yellow squares to scale the markup up or down without moving its center.
- Use one of the yellow circles to scale the markup up or down while moving its center in the same direction.

Changing a Diameter Measurement's Appearance

The appearance of the Diameter measurement is configurable, including line and fill color, hatch pattern, line width and style, opacity, plus the font style of the caption and whether or not to show it.

To change the appearance of a Diameter measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Select to include the caption text on the markup.

Show All Measurements: Select to include all measurements applicable to the markup, not just the default measurement.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, and Strikethrough. Generally, any combination of these styles can be applied to format the text.

Angle Measurement

The Angle measurement tool places specialized markups that calculate an angle.

As with any measurement, be sure to calibrate the document first.

Taking an Angle Measurement

1. Go to **Measure** > **Geometric** > **Angle** or press SHIFT+ALT+G. The **Angle** measurement mode is engaged.
    - Alternatively, click **Angle** on the Measurements tab.
2. Click to define a point along the first ray.
3. Click the vertex to define the second point.
4. Click along the second ray to complete the angle.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Hold CTRL and click and drag a markup that has already been placed to automatically make a copy of it.

Adding an Action to an Angle Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting an Angle Measurement

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **rotate the caption**, click and drag the orange handle directly over it. By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.To return a rotated caption to its original position, right-click it and select **Reset Caption Position**.

To **move the entire markup together**, click and drag a part of it other than the control handles.

To **resize a line or change its angle**, click and drag the appropriate yellow handle.

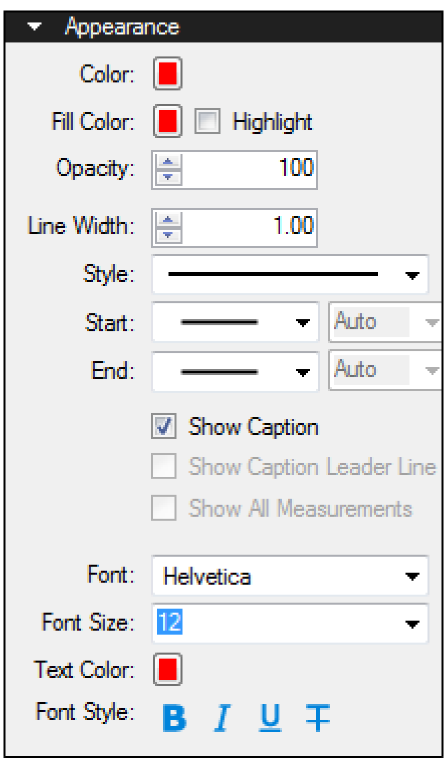
To **scale the markup up or down**, click and drag the appropriate purple handle.

Changing an Angle Measurement's Appearance

The appearance of the Angle measurement is configurable, including line color, style, width, and opacity, as well as the font style of the caption and whether or not to show it.

To change the appearance of an Angle measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Controls the fill color of the endpoints.

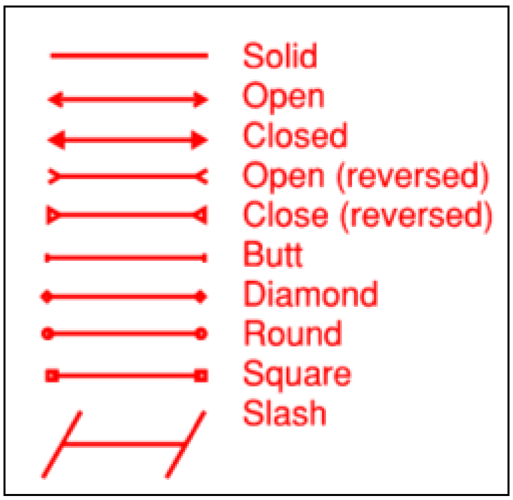
Highlight: Makes the fill color and line transparent so underlying content shows through.

Opacity: Sets opacity level of the line and endpoints, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line.

Style: Determines the pattern of the line segment.

Start and **End**: Controls the appearance of the endpoints for each side of the line. The diagram below shows samples of each type of endpoint.



Each endpoint has an associated **Scale** that determines the size of the endpoint in relation to the **Line Width**. By default, it is set to **Auto** and will automatically adjust as the **Line Width** is changed.

Show Caption: Select to include the caption text on the markup.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, and Strikethrough. Generally, any combination of these styles can be applied to format the text.

Center Radius Measurement

The Center Radius measurement tool places specialized markups that calculate the radius a circle based on the position of the circle's center and one point on its circumference. While a Center Radius measurement can be used to create a markup that is an arc, by default it creates full circles; for a potentially simpler way to create arcs that also measure radius, see Three-Point Radius Measurement.

As with any measurement, be sure to calibrate the document first.

- Taking a Center-out Radius Measurement
- Adding an Action to a Radius Measurement
- Resizing or Adjusting a Center Radius Measurement
- Changing a Center Radius Measurement's Appearance
  - Appearance Properties

Taking a Center-out Radius Measurement

1. Go to **Measure** > **Geometric** > **Center Radius** or press SHIFT+ALT+U. T0he **Center Radius** measurement mode is engage.
   - Alternatively, go to **Radius** > **Center Radius** on the Measurements tab.

   Note: The keyboard shortcut for the radius measurement tool actually calls the most recently used radius measurement tool, either this one or the Three-Point Radius Measurement tool.

2. Click to define the center of the circle.
3. To draw a full circle, simply click on any point along the circumference of the circle. Note that as the cursor is moved away from the center point that the radius is drawn.
4. To draw just a section of the circle (an arc), click on the first point along the desired arc and, while holding down the mouse button, drag along the arc and release at the second point.
   - Hold down SHIFT while describing the arc to automatically draw it in 45° increments.

Tips:

- When drawing an arc, Revu will automatically prevent it from being larger than 180° (a semi-circle); an attempt to draw a larger arc will result in the arc flipping on its axis. For an arc larger than 180°, either resize the Center Radius measurement after it's drawn or use the Three-Point Radius Measurement tool.

- Hold CTRL and click and drag a markup that has already been placed to automatically make a copy of it.

Adding an Action to a Radius Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Center Radius Measurement

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **rotate the caption**, click and drag the orange handle directly over it. By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.To return a rotated caption to its original position, right-click it and select **Reset Caption Position**.

To **change the size of the arc**, click and drag one of the yellow handles on the markup's circumference.

- Holding down SHIFT while doing so will change the arc in increments of 15°.

To **change the length of the radius**, click and drag the yellow handle at the circle's center.

To **move the entire markup together**, click and drag a part of it other than the control handles.

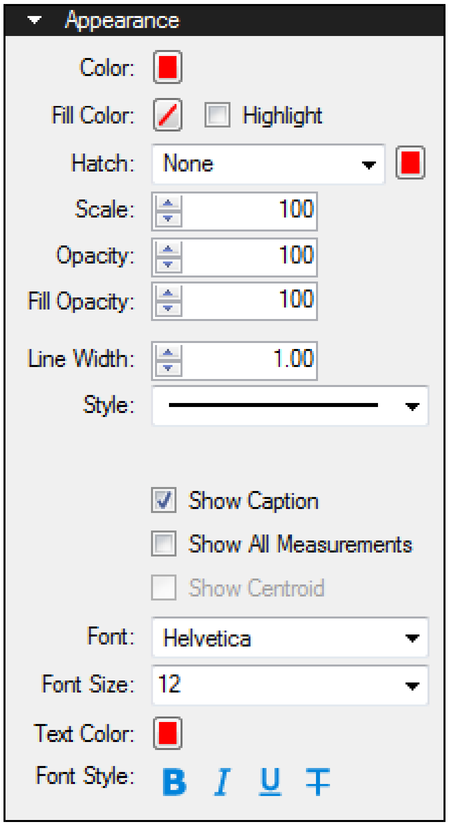
To **scale the markup up or down**, click and drag the appropriate purple handle.

Changing a Center Radius Measurement's Appearance

The appearance of the Radius measurement is configurable, including line and fill color, hatch pattern, line width and style, opacity, plus the font style of the caption and whether or not to show it.

To change the appearance of a Radius measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Select to include the caption text on the markup.

Show All Measurements: Select to include all measurements applicable to the markup, not just the default measurement.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, and Strikethrough. Generally, any combination of these styles can be applied to format the text.

Three-Point Radius Measurement

The Three-Point Radius measurement tool places specialized markups that calculate the radius an arc. While a markup placed with the Three-Point Radius tool can be made into a full circle after it has been placed, it always starts as an arc; to place a circular markup that also calculates the radius of the circle, see Center Radius Measurement.

As with any measurement, be sure to calibrate the document first.

- Taking a Three-Point Radius Measurement
- Adding an Action to a Radius Measurement
- Resizing or Adjusting a Three-Point Radius Measurement
- Changing a Three-Point Radius Measurement's Appearance
    - Appearance Properties

Taking a Three-Point Radius Measurement

1. Go to **Measure** > **Geometric** > **3-Point Radius** or press SHIFT+ALT+U. The **3-Point Radius** measurement mode is engaged.
    - Alternatively, go to **Radius** > **3-Point Radius** on the Measurements tab.

Note: The keyboard shortcut for the radius measurement tool calls the most recently used radius measurement tool, either this one or the Center Radius Measurement tool.

2. Click to define one end of the arc.
3. Click any other point on the arc that is not the other end.
4. Click to define the other end of the arc.

The result will be a pie-piece shape with the radius of the implied circle measured.

Tips:

- When drawing an arc using the Three-Point Radius measurement tool, Revu will automatically prevent it from being a full circle. To draw a full circle, either resize the Three-Point Radius markup after it's drawn or use the Center Radius Measurement tool.
- Hold CTRL and click and drag a markup that has already been placed to automatically make a copy of it.

Adding an Action to a Radius Measurement

You can add an action to nearly any markup. Simply right-click the markup and select **Edit Action** to open the Action dialog box.

Resizing or Adjusting a Three-Point Radius Measurement

Select a markup to reveal its control handles. Each handle controls a different aspect of the markup's size and orientation.

To **rotate the markup**, click and drag the orange handle outside the markup (when the markup is first placed, it will be at the top). By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.

The rotation can also be entered in the **Rotation** field found in the **Layout** section of the Properties tab.

To **rotate the caption**, click and drag the orange handle directly over it. By default, the markup is rotated in increments of 15°; to rotate in increments of 1°, hold down SHIFT while dragging.To return a rotated caption to its original position, right-click it and select **Reset Caption Position**.

To **change the size of the arc**, click and drag one of the yellow handles on the markup's circumference.

- Holding down SHIFT while doing so will change the arc in increments of 15°.

To **change the length of the radius**, click and drag the yellow handle at the circle's center.

To **move the entire markup together**, click and drag a part of it other than the control handles.

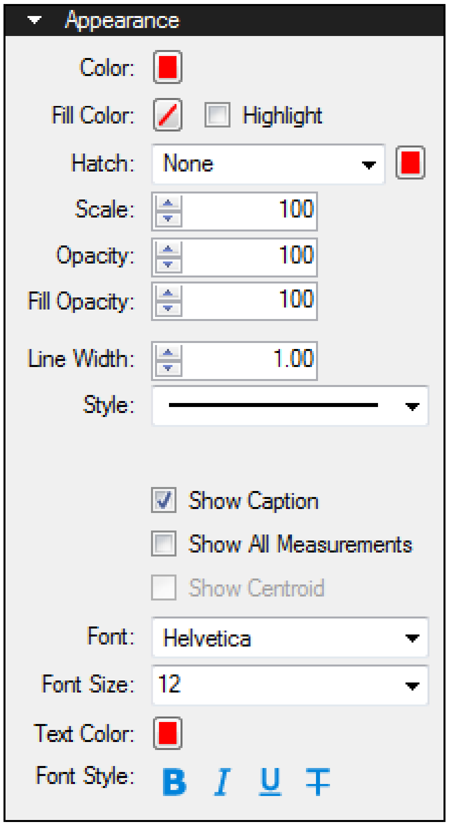
To **scale the markup up or down**, click and drag the appropriate purple handle.

Changing a Three-Point Radius Measurement's Appearance

The appearance of the Radius measurement is configurable, including line and fill color, hatch pattern, line width and style, opacity, plus the font style of the caption and whether or not to show it.

To change the appearance of a Radius measurement, select the markup and click the **Properties** tab. Go to **View** > **Tabs** > **Properties** or press ALT+P to show the **Properties** tab if it is hidden.

Appearance Properties



Color: Sets the line color.

Fill Color: Sets a fill color.

Highlight: Makes the fill color and/or hatch pattern transparent so underlying content shows through.

Hatch: Sets a hatch pattern. The associated color selector sets the line color of the hatch pattern.

Scale: Sets the scale of the hatch pattern, from 50 (half the default scale) to 200 (twice the default scale).

Opacity: Sets the line opacity, from 0 (invisible) to 100 (opaque).

Fill Opacity: Sets the fill and hatch pattern opacity, from 0 (invisible) to 100 (opaque).

Line Width: Sets the thickness (in points) of the line. A setting of 0 effectively renders the line invisible.

Style: Determines the line pattern.

Show Caption: Select to include the caption text on the markup.

Show All Measurements: Select to include all measurements applicable to the markup, not just the default measurement.

Font: Sets the font used for the selected text. Available fonts are divided into three regions:

- The first region shows all fonts used in the currently selected text element.
- The second region lists the standard PDF fonts that are supported by all PDF viewers. These fonts do not need to be embedded in the PDF when used, thereby cutting down on file size.
- The third shows all other available fonts. When used, these fonts need to be embedded in the PDF.

Note: If you attempt to embed a font for which the viewing and editing permissions do not allow formatting, Revu will display a message indicating the font will not be embedded in the PDF.

Font parameters are retained in the PDF such that even if the original font is not embedded or on the viewer's workstation, a suitable representation of the font will be substituted.

Font Size: Sets the size of the font used for the caption. While the list shows sizes ranging from 2 to 72, font sizes between 1 to 144 points are supported; just enter the desired size manually. Also, values with up to one digit after the decimal point can be used.

Text Color: Sets the color of text.

The **Font Style** settings control the formatting of the text. Options include Bold, Italic, Underline, and Strikethrough. Generally, any combination of these styles can be applied to format the text.

Performing Takeoffs with the Measure Tool

The Measure tool is a good way to take multiple related measurements from a PDF file, which is useful in the estimation process. Measurements can persist as markups, allowing for processing and summarization through the Markups list, which is also useful for estimation and takeoffs,or be temporary. When the Measure Tool is activated, the last measurement mode used is automatically selected. This makes it easier to employ your most commonly used measurement mode. This section will demonstrate using the Measure tool to take several types of common measurements.

- Calibrating the Scale
- Taking a Length Measurement
- Taking a Curved Measurement
- Measuring an Open Perimeter
- Showing All Measurements
- Repositioning the Measurement Values

Calibrating the Scale

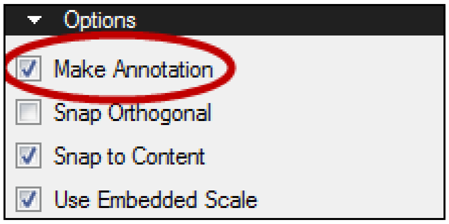
Before taking a measurement, be sure to calibrate the drawing to a known value. This ensures measurements will be accurate even if scaling occurred at the time of PDF creation.

Taking a Length Measurement

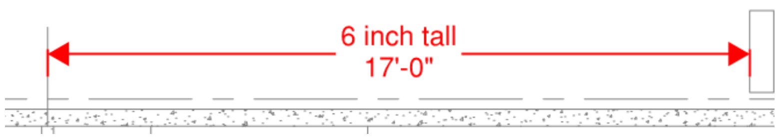
Length measurements, which calculate a single, linear measurement, are among the most common. For a multi-segment line, like an open perimeter, see Measuring Open Perimeters below.

To take a length measurement:

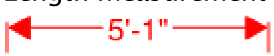
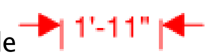
1. Go to **Measure** > **Measure Tool**. The **Measurements** tab becomes active and the most recently used measurement mode is enabled.
2. On the Measurements tab toolbar, click **Length**.
3. In the **Options** section of the **Measurements** tab, ensure **Make Annotation** is checked. If it is not, the measurement will be temporary.



4. Enter a description of the measurement in the **Subject** field of the **Measurements** tab. This description will appear on the Markups list.
5. To add text that will appear on the markup, enter it in the **Label** field of the **Measurements** tab. In the example below, the text "6 inch tall" was entered.
6. Click the end points of the desired length.



Tips:

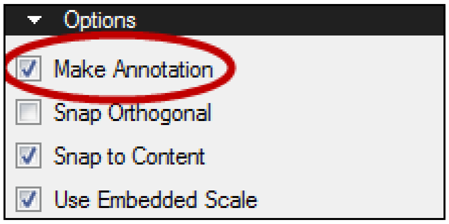
- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Length measurement arrows will automatically position themselves inside  the extension lines when there is enough room, otherwise they will automatically position themselves outside  the extension lines.

Taking a Curved Measurement

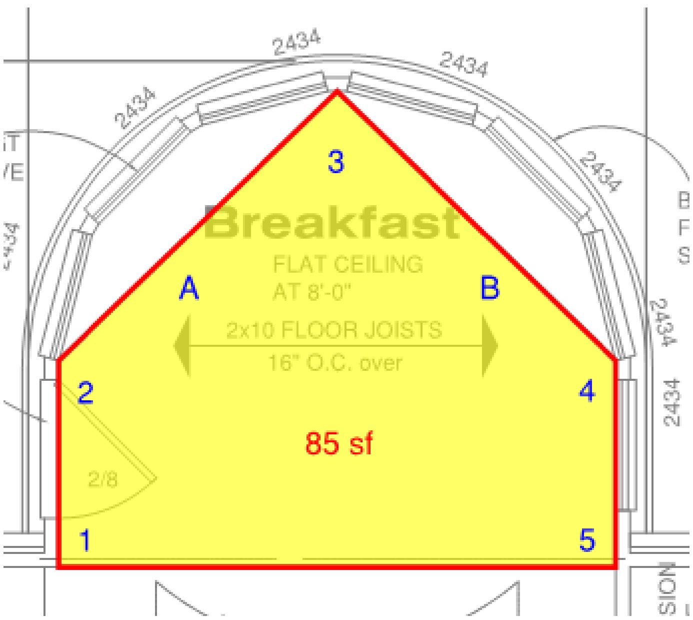
Revu typically takes standard measurements in straight lines, but you can add arcs to those lines in order to measure curved areas easily. You can also configure Revu to draw using curves automatically in the Markup Preferences. The example below outlines the basic procedure using an Area Measurement. Refer to the Working with Curved Markups section for more detail.

To take a curved measurement:

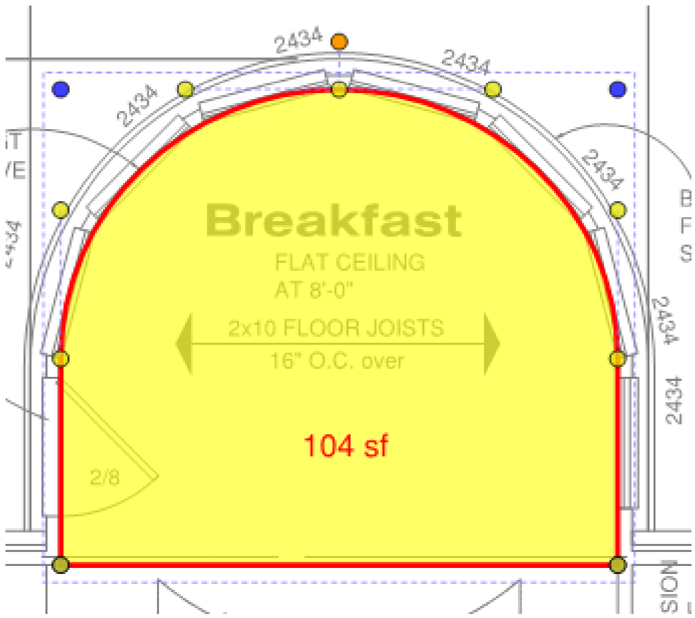
1. Go to **Measure** >  **Measure Tool**. The **Measurements** tab becomes active and the most recently used measurement mode is enabled.
2. On the Measurements tab toolbar, click  **Area**.
3. In the **Options** section of the **Measurements** tab, ensure **Make Annotation** is checked. If it is not, the measurement will be temporary.



4. Enter a description of the measurement in the **Subject** field of the **Measurements** tab. This description will appear on the Markups list.
5. To add text that will appear on the markup, enter it in the **Label** field of the **Measurements** tab.
6. Click to define several points around the area. In the following example, five points have been used, numbered 1-5.



7. Right-click on the line near point **A** and select **Convert to Arc**.
8. Right-click on the line near point **B** and select **Convert to Arc**.



9. Click and drag the yellow control points to adjust the arc as necessary.

The measurement is updated as you edit the markup shape.

Tips:

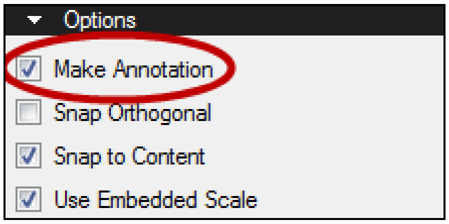
- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Click and drag to place a rectangular shape.
    - Holding down SHIFT while doing so will force the rectangle into a square.

Measuring an Open Perimeter

Perimeter measurements are often used to calculate the total length of all sides of a given shape. Though they can appear similar to an Area Measurement, they are not closed shapes, and thus they can be used to calculate the length of a multi-segment line, such as when estimating cable or wiring runs.

To measure an open perimeter:

1. Go to **Measure** > **Measure Tool**. The **Measurements** tab becomes active and the most recently used measurement mode is enabled.
2. On the Measurements tab toolbar, click **Perimeter**.
3. In the **Options** section of the **Measurements** tab, ensure **Make Annotation** is checked. If it is not, the measurement will be temporary.



4. In the **Measurements** section of the **Measurements** tab, the **Depth** field becomes active. This allows for the additional calculation of Wall Area on the Markups list, if desired. Enter the desired value and select the units of measure from the associated menu.
5. Enter a description of the measurement in the **Subject** field of the **Measurements** tab. This description will appear on the Markups list.
6. To add text that will appear on the markup, enter it in the **Label** field of the **Measurements** tab.
7. Click on each point of the desired shape.
    - To remove the last control point, press BACKSPACE.
8. Press ENTER after placing the last point.

Tips:

- Hold down SHIFT to draw lines that are at horizontal, vertical, or 45° angles.
- Click and drag to place a rectangular shape.
    - Holding down SHIFT while doing so will force the rectangle into a square.

Showing All Measurements

Several measurement markups have the ability to show more measurements than they do by default, including Area, Perimeter and Volume measurements. This can enable a single measurement to serve multiple estimation functions for the same area of a drawing.

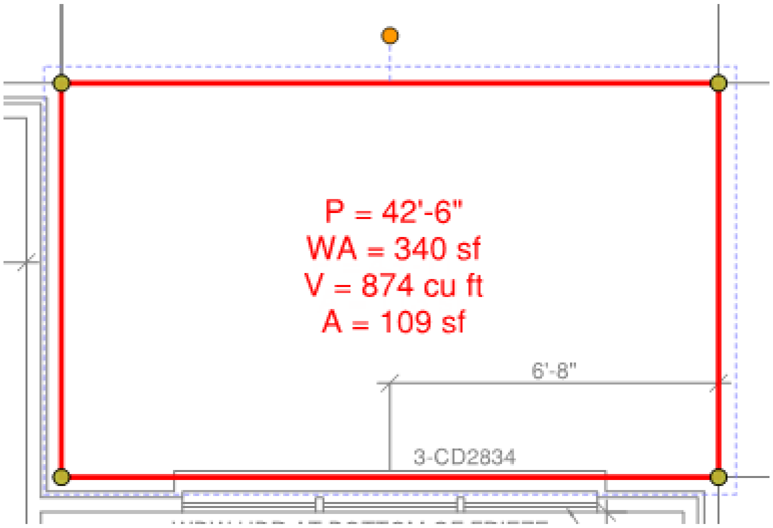
- Perimeter measurements can show Perimeter and Wall Area when the Depth is defined.
- Area measurements can show Area and Perimeter as well as Wall Area and Volume when the Depth is defined.
- Volume measurements can show Volume, Area, Perimeter, and Wall Area.

To show all measurements:

1. Right-click the desired markup and select **Properties**. The Properties tab for the markup appears.
2. Enable **Show All Measurements** on the **Properties** tab.

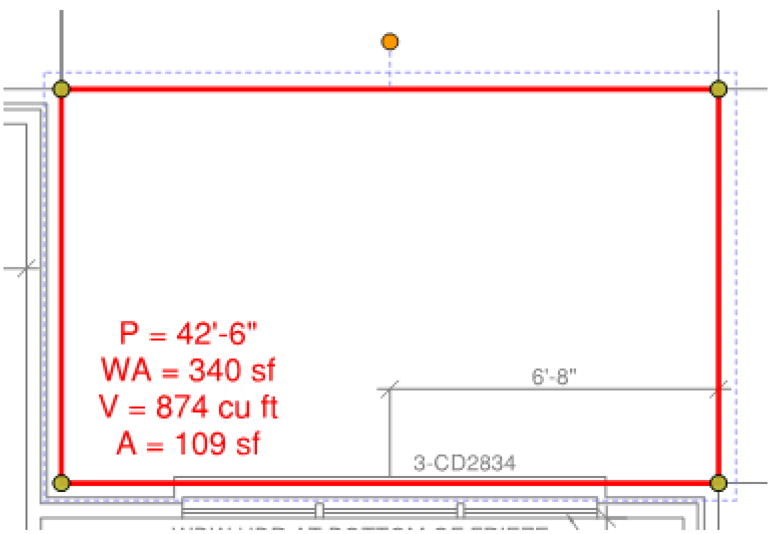
Depending on what type of measurement you selected, the following measurements appear:

- **P** = Perimeter
- **A** = Area
- **WA** = Wall Area
- **V** = Volume



Repositioning the Measurement Values

When an Area or Volume measurement is taken, the values are shown in the center of the measurement. With Perimeter measurements, the values are shown along the last line segment placed. To reposition these values, hold the SHIFT key while you click and drag to the desired location. Here, the measurements of an Area have been repositioned to the lower corner of the markup.



Hyperlinking in Revu

Hyperlink Tool

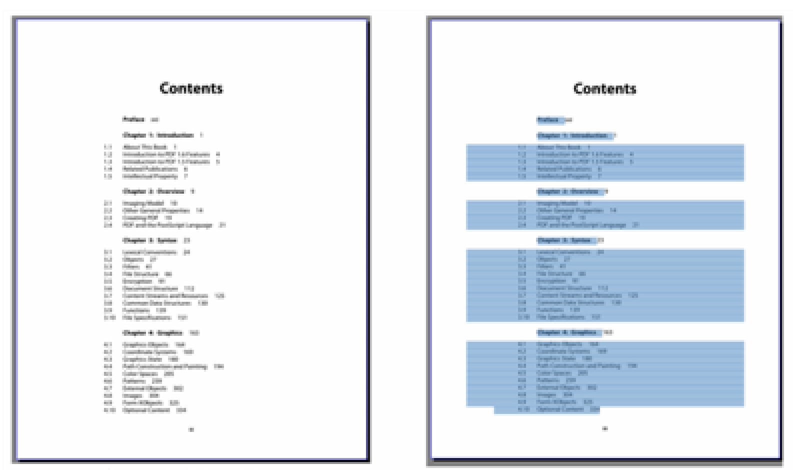
The Hyperlink tool is used to insert and view hyperlinks in a PDF.

For batch hyperlinking, see Batch Hyperlinker (only available in Bluebeam Revu eXtreme Edition).

- Viewing Hyperlinks in the Current PDF
- Adding a Hyperlink to a PDF
- Defining a Hyperlink's Action
- Creating a Hyperlink to a Snapshot View in Another PDF
- Changing a Hyperlink
- Deleting a Hyperlink

Viewing Hyperlinks in the Current PDF

Go to **Markup** > **Hyperlink.** to view the hyperlinks in the current PDF. Hyperlinked areas of the PDF are highlighted in blue.



Document with hyperlinks   Hyperlink button clicked

To turn off the Hyperlinks view, press ESC.

Adding a Hyperlink to a PDF

To add a hyperlink to a defined area:

1. Go to **Markup** > **Hyperlink.**
2. Click and drag a rectangular region on the current PDF. A blue rectangle appears, indicating the active region for the hyperlink.

3. Release the mouse button and the **Action** dialog box appears. Define the hyperlink's action and click **OK**.

To add a hyperlink to text:

1. Go to **Markup** > **Hyperlink**.
2. Click and drag to select text in the PDF. The text is highlighted.
3. Release the mouse button and the **Action** dialog box appears. Define the hyperlink's action and click **OK**.

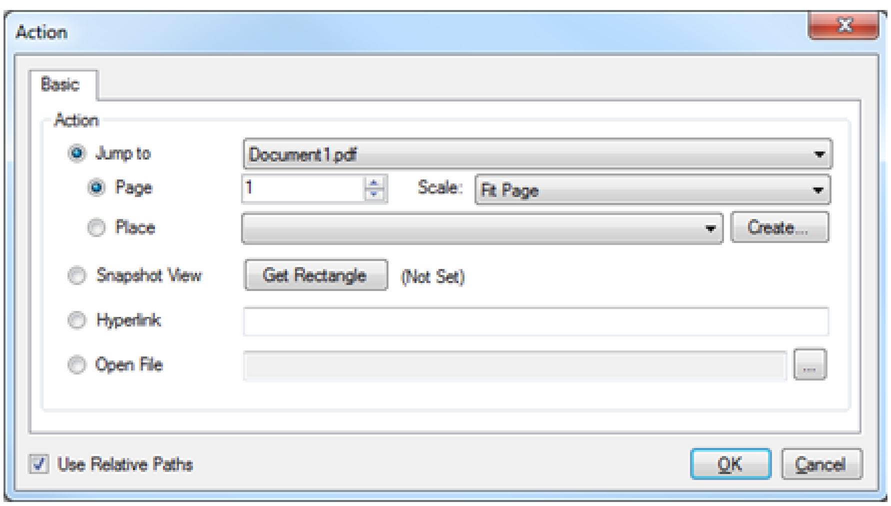
Hyperlinks can also be created from the Hyperlink button in the File Access list:

1. Place the cursor over the desired file name in the list.
2. Click the **Hyperlink** icon to the right of the name.
3. Click and drag to define the area of the hyperlink on the PDF. Release the mouse button and the Action will be automatically defined as opening that file.

Hyperlinks can also be created from Search Results.

Defining a Hyperlink's Action

The Hyperlink Action is what will happen when the hyperlink is clicked. This is defined in the **Action** dialog box, which appears after the hyperlinked area or text is defined.



There are five actions that can be configured:

Jump to Page: Moves to a specific page number in a selected PDF. To set this action:

1. Select the PDF from the **Jump To** dropdown menu. Only PDFs that are currently open in Revu will be available.
2. Specify where in the PDF to jump to by entering a page number in the **Page** field.

3. Set the zoom factor or scale of the page that is displayed by choosing the desired setting from the **Scale** dropdown menu. The pages can be set to display either in a **Fit Page**, **Actual Size** or **Fit Width** mode. Alternatively, the **Inherit Zoom** setting will display the page at whatever the current zoom setting is within Revu.

Jump to Place: Moves to a predefined Place on a PDF. The location of a Place can be changed later without breaking the action. To set this action:

1. Select the PDF from the **Jump To** dropdown menu. Only PDFs that are currently open in Revu will be available.
2. Select the Place from the **Place** dropdown menu. If the desired Place does not already exist, click the **Create** button to create one on the fly.

Snapshot View: Moves to a specific, zoomed in area of the current PDF. This option is useful for zooming into specific views of a region of a large format drawing, such as a particular elevation detail. Click **Get Rectangle** to define the area of the drawing to jump to.

Hyperlink: Opens the URL entered in the **Hyperlink** field. The URL will open in a WebTab within Revu or in the device's default browser (as determined by the **Open PDF Hyperlinks in WebTabs** setting in WebTab Preferences).

Open: Opens the file specified in the **Open File** field. Click the ... button to open a file browser.

Use Relative Paths: Revu can store either a full or relative path to a file. When a full path is stored, the location of the file is defined from the drive it resides on; when a relative path is stored, it defines the location of the linked file relative to the current file. A full path is best when you plan to move the file storing the link but not the file being linked to, such as when the linked file resides on a network drive that is accessible to all users. A relative path is best when both files are liable to be moved, such as when you are archiving an entire project to CD, or moving a project to another computer. For more information and Relative vs Full Path, see Understanding Relative vs Full Paths.

Creating a Hyperlink to a Snapshot View in Another PDF

A link to a Snapshot view in another PDF can be created using the following steps:

1. Open both PDF files and select the one that's going to get the hyperlink so it's active.
2. Go to **Markup** > **Hyperlink**.
3. Click and drag a rectangular region on the current PDF. A blue rectangle appears, indicating the active region for the hyperlink.
4. Release the mouse button and the **Action** dialog box appears.

5. Select **Snapshot View** and then click **Get Rectangle.**
6. Switch to the other PDF and define the rectangle of the Snapshot view.

Changing a Hyperlink

There are two ways to change hyperlinks in a document, depending on whether it is the hyperlink's action or appearance that is to be changed.

To change the action of a hyperlink:

1. Open the PDF.
2. Go to **Markup** > **Hyperlink.** The hyperlinks in the PDF are shown.
3. Right-click on a hyperlink and select **Edit Action**. The **Action** dialog box appears.
4. Change the action as desired and click **OK.**

To change the appearance of a hyperlink:

1. Open the PDF.
2. Go to **Markup** > **Hyperlink.** The hyperlinks in the PDF are shown.
3. Right-click on a hyperlink and select **Properties**. The following options are available on the **Properties** tab:
    - **Visible**: This option makes the hyperlink visible.
    - **Color**: This option sets the color of the hyperlink's outline.
    - **Line Width**: This option sets the line width of the hyperlink's outline.
    - **Style**: This option sets the line style of the hyperlink's outline.
    - **Execute**: Click this button to execute the hyperlink's action.
    - **Edit**: Click this button to open the **Action** dialog box and change the hyperlink's action.

Deleting a Hyperlink

1. Open the PDF.
2. Go to **Markup** > **Hyperlink.** The hyperlinks in the PDF are shown.
3. Use one of the following methods to delete a hyperlink:
    - Click a hyperlink to select it and press DELETE.
    - Right-click a hyperlink and select **Delete**.

Batch Link

Batch Link automatically creates navigational hyperlinks within a specified group of documents based on user-defined criteria. Batch Link can be run against multiple PDFs or a single, multi-paged PDF.

Batch Link searches PDFs for text specified by the user and then creates links to user-defined destinations. There are built-in tools to auto-generate both search terms and destinations, or users can manually enter them.

PDFs need to have searchable text for Batch Link to work on them.

Batch Link is available in Bluebeam Revu eXtreme only.

Running Batch Link

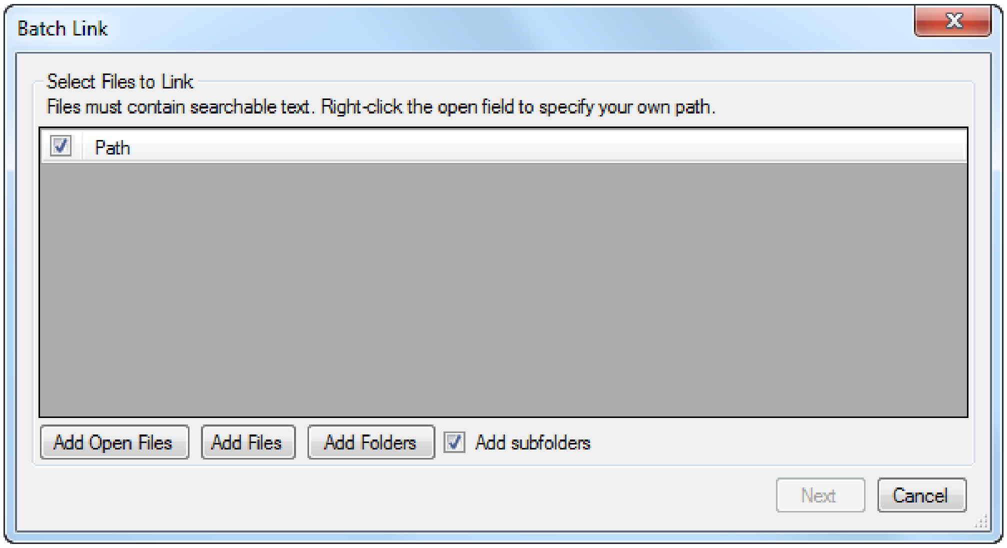
Batch Link can be run against any number of PDFs or a single, multi-paged PDF. There is no need for these documents to be grouped; the user can select individual documents or entire folders (including, if desired, subfolders) from a variety of locations.

PDFs do not need to be open in Revu when the batch process is run. If a document is open in Revu, any changes resulting from the batch process will be made to the document, but the document will not be saved or checked in (if relevant); the user will need to save and check in the document manually. If a document is not open in Revu, and it is not checked out/locked by another user, changes will be applied and saved to the document automatically (without opening the document in Revu).

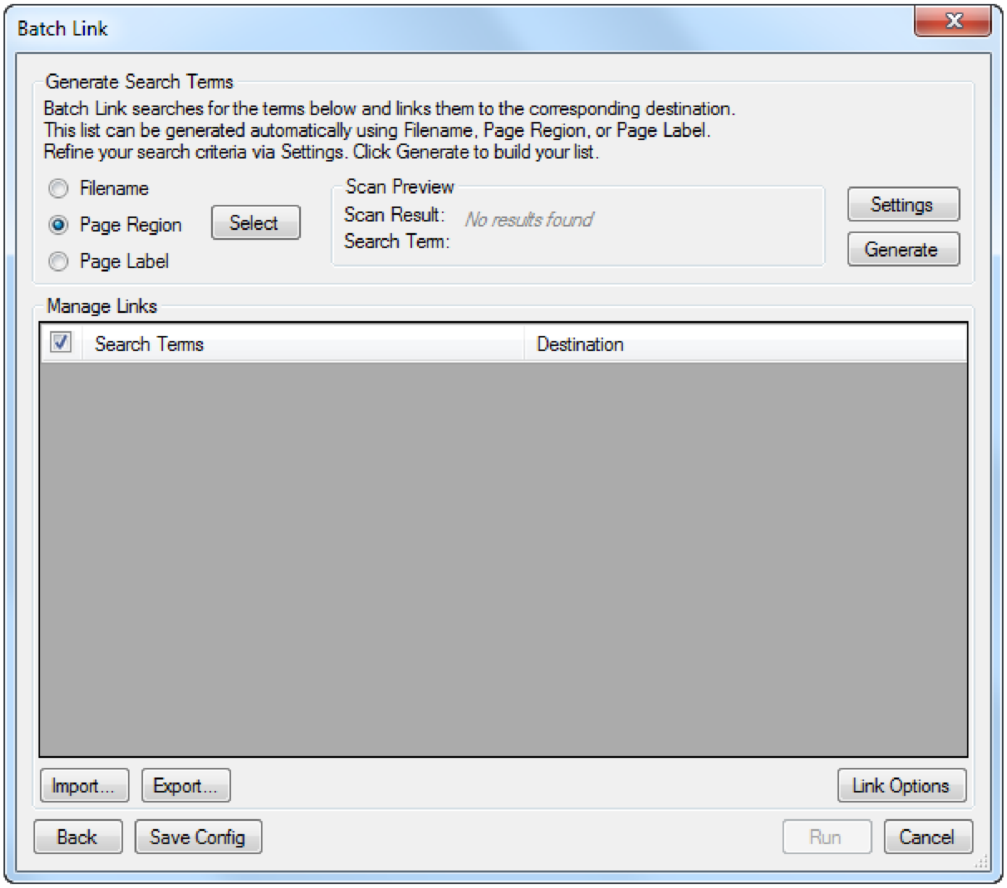
There is a specific process for running Batch Link on a Set. See Running Batch Link on a Set below.

To run Batch Link:

1. Go to **File** > **Batch** > **Link** > **New**. The **Batch Link** wizard opens.



2. Add PDFs to be processed using one or more of the following methods:
   - To add all PDFs that are currently open in Revu, click **Add Open Files**.
   - To select files from a local or network drive, click **Add**.
   - To add all PDFs that are in a folder on a local or network drive, click **Add Folder**. Select **Add subfolders** to automatically add subfolders as well.
   - To manually enter the path to a PDF or a folder, right-click inside the **Path** list and select **Insert New**.
3. By default, any item added to the **Path** list will be selected for processing. Uncheck the box to the left of any item to exclude it from processing.
   - It is possible to include both the path to a specific document and to that document's parent folder. When that happens, there are specific behaviors governing what is processed when one is checked and the other is not:
     - If the path to the document is selected and the path to its parent folder is not, the document will be processed but nothing else in the folder will be.
     - If the path to the document is not selected but the path to its parent folder is, all PDFs in the folder, except that document, will be processed.
4. Click **Next**. The second page of the **Batch Link** wizard opens.

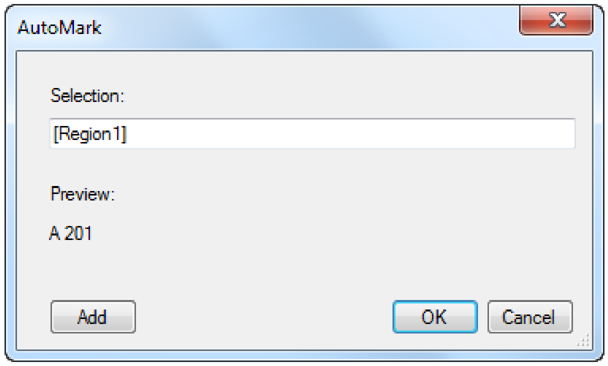


5. To import a set of search terms and destinations that were previously saved as a CSV file, click **Import**. Otherwise, use one of the following options to generate search terms and destinations:

   - **Filename**: Uses the file name for each PDF included in the batch process as a **Search Term** with the **Destination** being the page itself.
   - **Page Region**: Uses the text found within user-defined regions as a **Search Term** with the **Destination** being the page itself. To define a region:

     A. Click **Select**. The dialog box disappears, replaced with a crosshair cursor.

     B. Click and drag to define a region on the PDF. Generally speaking, the data in this region should be located in the same place on each PDF. When the region has been defined, the **AutoMark** dialog box appears.



C. To add another region, click **Add**. The **AutoMark** dialog box disappears, replaced with a crosshair cursor again. Click and drag to define another region. The **AutoMark** dialog box reappears with the new region added to the **Selection** field. There is no limit to the number of regions that can be added.

- Review the sample page label, as shown under **Preview**. If desired, click in the **Selection** field to add text before, after or between **[Regions]**.

D. When all regions have been defined, click **OK**. The **AutoMark** dialog box closes, replaced by the previous dialog box.

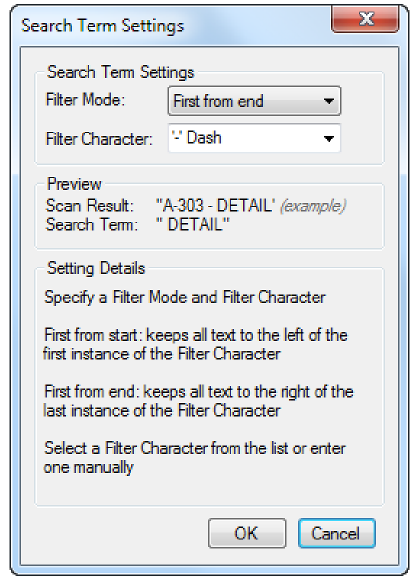
> **Note**: AutoMark is most suitable for documents that are vector-based, are the same size and have the same registration. AutoMark might not work as expected if the pages are different sizes, if some of the pages are not searchable or if the scans are not properly registered.

- **Page Label**: Uses the predefined page label for each PDF included in the batch process as a **Search Term** with the **Destination** being the page itself.

6. Click **Settings**. The **Search Terms Settings** dialog box appears.

A. Select a combination of **Filter Mode** and **Filter Character** to automatically filter search terms, as desired.

- **Filter Mode: First from start**: Keeps all text from the start of the Scan Result to the first occurrence of the **Filter Character**.
- **Filter Mode: First from end**: Keeps all text from the last occurrence of the **Filter Character** to the end of the Scan Result.
- **Filter Character**: Select one of the available characters or manually enter one.



See the **Preview** for an example of the results.

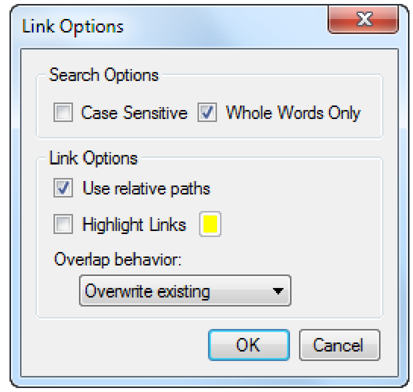
B. Click **OK**.

7. Click **Generate**. The **Manage Links** list is automatically populated.
8. Select any **Search Term** or **Destination** to edit it. To manually enter a **Search Term** and **Destination**, right-click inside the **Manage Links** list and select **Insert New** to add a new row. There are four types of hyperlinks that are supported and each requires specific syntax. Based on the type of hyperlink desired, use the appropriate syntax as shown below:

Type of Hyperlink	*Syntax*
Link to file	*<filename>*
Link to page in file	page *<#>* in *<filename>*
Link to place[1] in file	place "*<place name>*" in *<filename>*
Link to URL	web *<url>*

[1] It is recommended, but not mandatory, that the place name be surrounded by quotes (") as in the example.

9. Click **Link Options**. The **Link Options** dialog box appears.



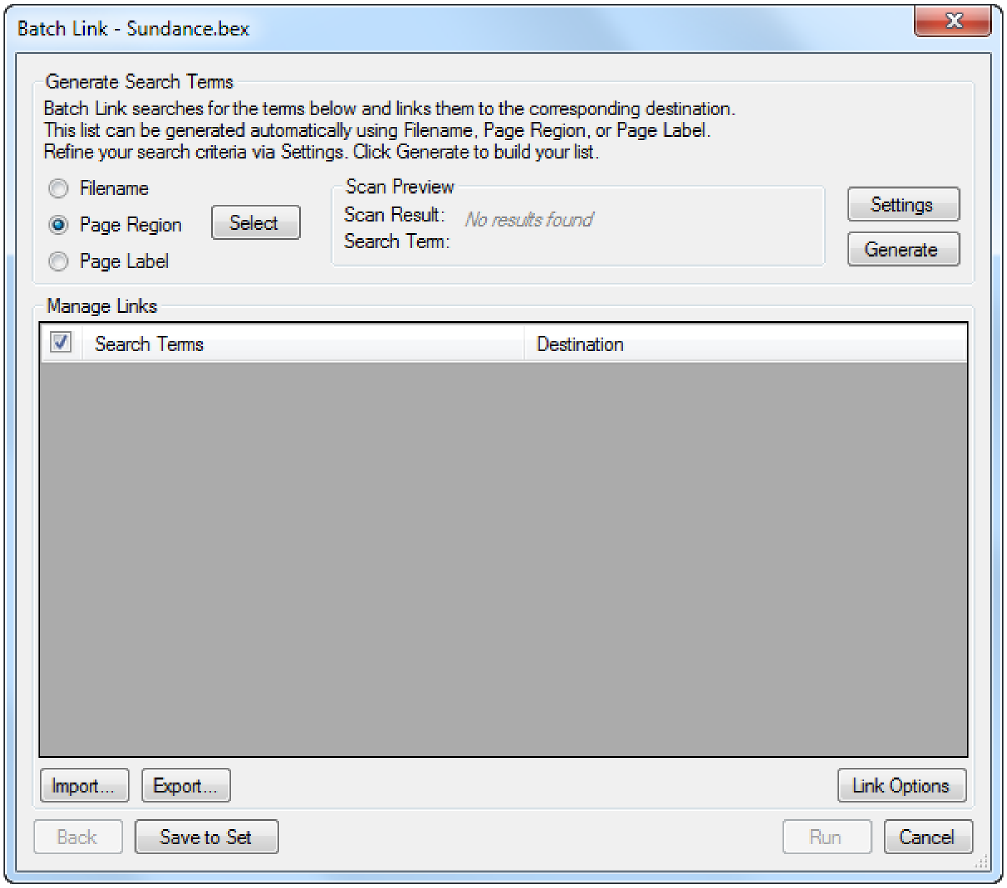
   A. Select any or all of the desired **Search Options**.
   B. Select **Use relative paths** to create links that use relative paths or leave this box unchecked to use full paths instead.
   C. To place rectangular highlights over hyperlinks placed by Batch Link, select **Highlight Links** and choose a color by clicking the box immediately to its right.
   D. Choose an **Overlap behavior** that will determine what the process will do when it attempts to place a hyperlink where one already exists.
   E. Click **OK**. The **Link Options** dialog box closes.

10. To save the current list of search terms and destinations, click **Export**.
11. To save the current Batch Link configuration, including selected PDFs, search terms and destinations, as well as settings and link options, click **Save Config**.
12. Click **Run**. The **Batch Link Summary** report opens (see Batch Link Summary below for more information regarding the report).

Running Batch Link on a Set

To run Batch Link on a Set:

1. Open the Set to be processed.
2. Go to **File** > **Batch** > **Link** > **Current Set**. The Batch Link wizard opens to the second page.

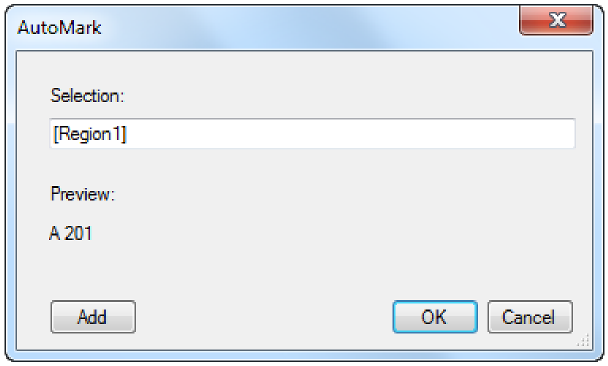


3. To import a set of search terms and destinations that were previously saved as a CSV file, click **Import**. Otherwise, use one of the following options to generate search terms and destinations:

   - **Filename**: Uses the file name for each PDF included in the batch process as a **Search Term** with the **Destination** being the page itself.
   - **Page Region**: Uses the text found within user-defined regions as a **Search Term** with the **Destination** being the page itself. To define a region:

     A. Click **Select**. The dialog box disappears, replaced with a crosshair cursor.

     B. Click and drag to define a region on the PDF. Generally speaking, the data in this region should be located in the same place on each PDF. When the region has been defined, the **AutoMark** dialog box appears.



C. To add another region, click **Add**. The **AutoMark** dialog box disappears, replaced with a crosshair cursor again. Click and drag to define another region. The **AutoMark** dialog box reappears with the new region added to the **Selection** field. There is no limit to the number of regions that can be added.

   - Review the sample page label, as shown under **Preview**. If desired, click in the **Selection** field to add text before, after or between **[Regions]**.

D. When all regions have been defined, click **OK**. The **AutoMark** dialog box closes, replaced by the previous dialog box.

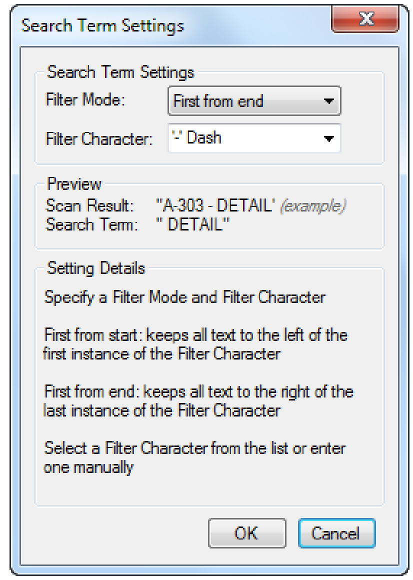
> **Note**: AutoMark is most suitable for documents that are vector-based, are the same size and have the same registration. AutoMark might not work as expected if the pages are different sizes, if some of the pages are not searchable or if the scans are not properly registered.

- **Page Label**: Uses the predefined page label for each PDF included in the batch process as a **Search Term** with the **Destination** being the page itself.

4. Click **Settings**. The **Search Terms Settings** dialog box appears.

A. Select a combination of **Filter Mode** and **Filter Character** to automatically filter search terms, as desired.

- **Filter Mode: First from start**: Keeps all text from the start of the Scan Result to the first occurrence of the **Filter Character**.
- **Filter Mode: First from end**: Keeps all text from the last occurrence of the **Filter Character** to the end of the Scan Result.
- **Filter Character**: Select one of the available characters or manually enter one.



See the **Preview** for an example of the results.

B. Click **OK**.

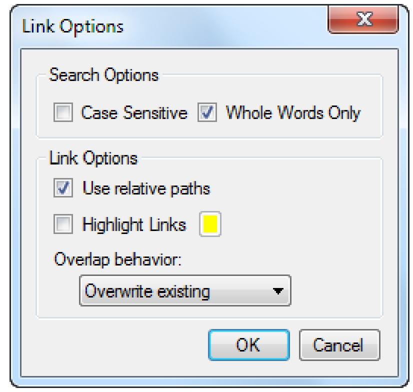
5. Click **Generate**. The **Manage Links** list is automatically populated.
6. Select any **Search Term** or **Destination** to edit it. To manually enter a **Search Term** and **Destination**, right-click inside the **Manage Links** list and select **Insert New** to add a new row. There are four types of hyperlinks that are supported and each requires specific syntax. Based on the type of hyperlink desired, use the appropriate syntax as shown below:

Type of Hyperlink	*Syntax*
Link to file	*<filename>*
Link to page in file	page *<#>* in *<filename>*
Link to place[1] in file	place "*<place name>*" in *<filename>*
Link to URL	web *<url>*

[1] It is recommended, but not mandatory, that the place name be surrounded by quotes (") as in the example.

7. Click **Link Options**. The **Link Options** dialog box appears.

A. Select any or all of the desired **Search Options**.
B. Select **Use relative paths** to create links that use relative paths or leave this box unchecked to use full paths instead.
C. To place rectangular highlights over hyperlinks placed by Batch Link, select **Highlight Links** and choose a color by clicking the box immediately to its right.
D. Choose an **Overlap behavior** that will determine what the process will do when it attempts to place a hyperlink where one already exists.
E. Click **OK**. The **Link Options** dialog box closes.



8. To save the current list of search terms and destinations, click **Export**.
9. To save the current Batch Link configuration, including selected PDFs, search terms and destinations, as well as settings and link options, click **Save to Set**.
10. Click **Run**. The **Batch Link Summary** report opens (see Batch Link Summary below for more information regarding the report).

Saving and Using Saved Batch Link Configurations

Batch Link configurations can be saved as XML files at any time after file selection is done. Any configurations that have been set (PDF selection, Search Term Settings, Search Terms, Destinations and Link Options) will be saved and can be reused at a later time (for example, to update hyperlinks after document revisions come in). These XML files can be used to initiate a Batch Link process.

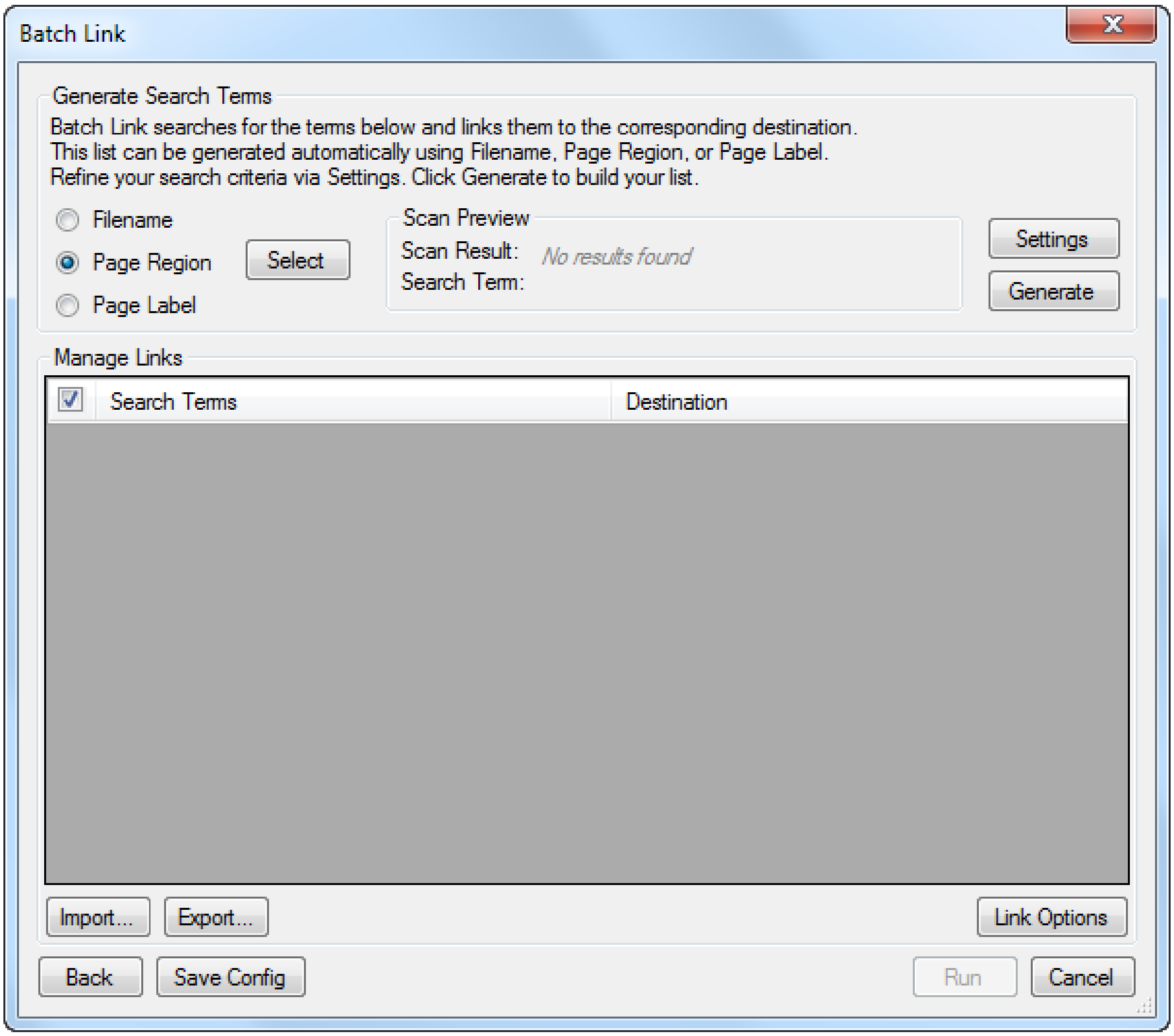
Configurations for Sets are an exception: instead of saving full configurations to a separate XML file, configurations for Sets are saved directly to the Set's .bex file and opened automatically along with the Set.

Alternately, just search terms and destinations can be exported to a CSV file. This can be useful when a list of search terms and destinations needs to be audited or edited and it would be easier to do it in a spreadsheet application. These CSV files can then be imported into a Batch Link process without affecting any other settings.

Saving Batch Link Configurations

Entire Batch Link configurations can be **saved** as an XML file, or just the Search Terms and Destinations can be **exported** to a CSV file. Both options are available from the second page of the Batch Link wizard.

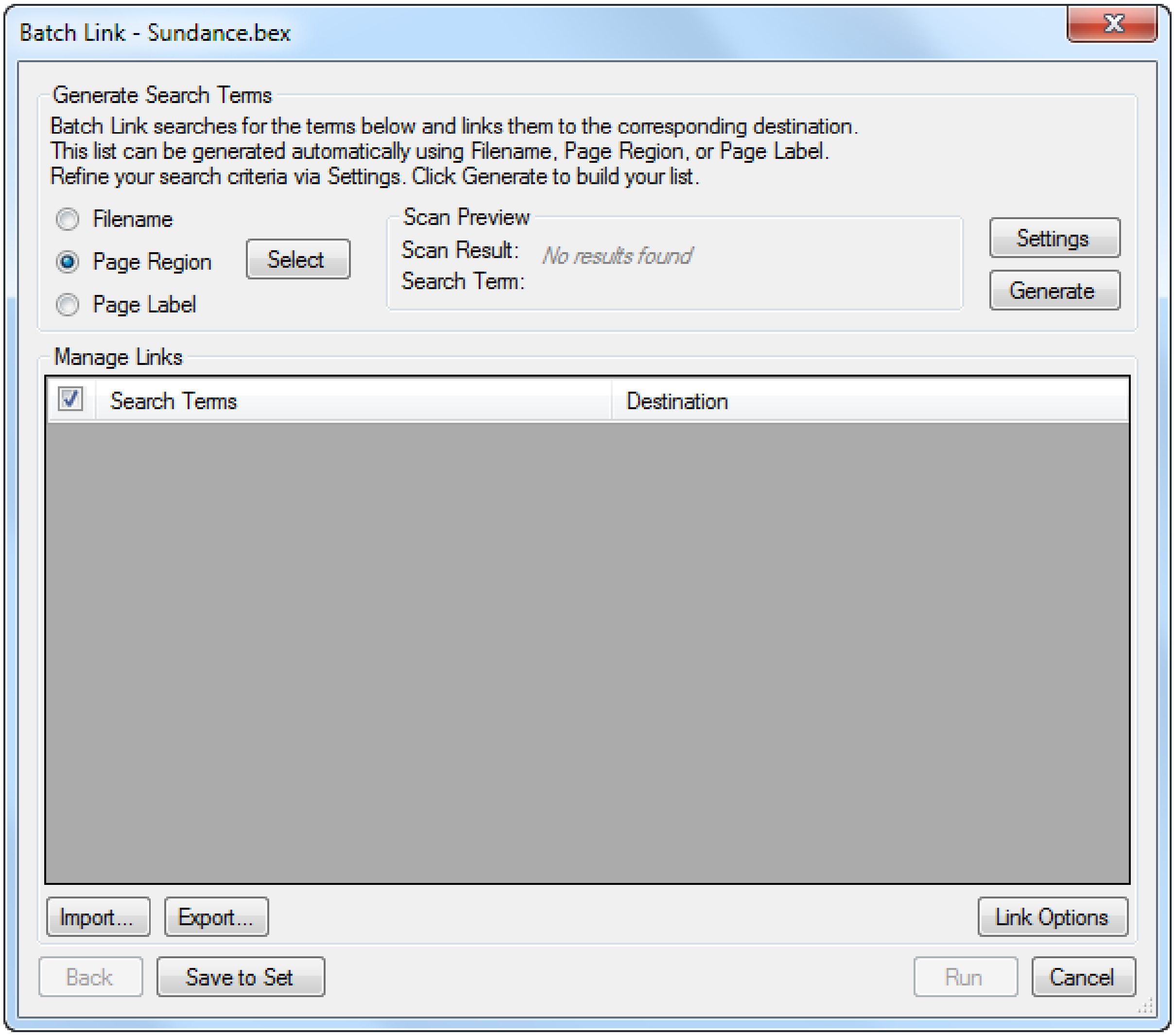
- To save all the current Batch Link settings as an XML file, click **Save Config**.
- To save just a set of search terms and destinations as a CSV file, click **Export**.



Saving Set Configurations

Saving configurations for Sets is different than for PDFs that are not in a Set. Instead of having the option to save an XML configuration file, Set configurations are saved directly into the .bex file and become the default for that Set. Search terms and destinations can be imported and exported normally.

- To save a Batch Link configuration directly to the current Set, click **Save to Set**.



Initiating Batch Link Using an Existing Configuration

Existing XML configurations can be used to start Batch Link. Only XML configurations can be used to initiate Batch Link.

To run Batch Link using an XML configuration:

- Go to **File** > **Batch** > **Link** > **Open**. Browse to the desired configuration file and open it. The Batch Link wizard opens with the pre-loaded data from the configuration file.
    - Alternatively, recently used configurations are listed on the same menu for faster access. Click any of these configurations, as desired.

Importing Saved Search Terms and Destinations

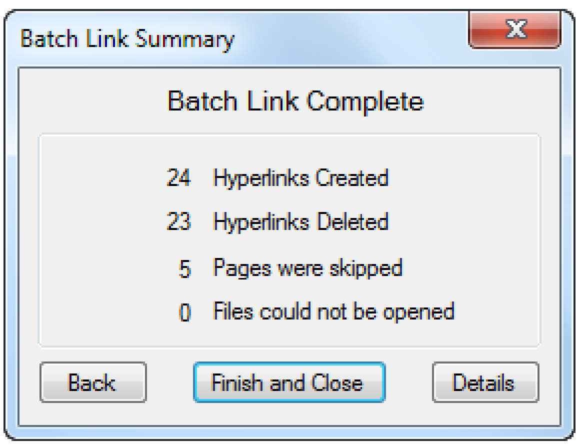
Existing CSV configurations can be used to import search terms and destinations. Only search terms and destinations will be imported; all file selections, filter options, and link options will be retained. If there are existing search terms and destinations, they will be overwritten.

To import search terms and destinations:

1. Start a new Batch Link process and select files and folders to be linked, as described in Running Batch Link.
    - Alternatively, initiate Batch Link using an existing configuration.
2. Click **Next** to proceed to the second page of the Batch Link wizard.
3. From the second page of the Batch Link wizard, click the **Import** button. Browse to the desired configuration file and open it. The saved search terms and destinations are imported, overwriting any existing search terms and destinations. No other settings are affected.

Batch Link Summary

After Batch Link has been run, a **Batch Link Summary** dialog box appears and reports the results of the process.



The following information is provided:

- **Hyperlinks Created**: The number of new hyperlinks created by the process.
- **Hyperlinks Deleted**: The number of old hyperlinks that were deleted (according to the Overlap Behavior defined in the Link Options) by the process.
- **Pages Skipped**: The number of PDF pages that were skipped by the process because they did not contain searchable text.
- **Files that could not be opened**: The number of PDFs that could not be opened by the process.

Click **Details** to view an expanded report of the Batch Link results.

Click **Back** to return to the Batch Link wizard and take the opportunity to correct any issues detected and re-run the process or save a configuration.

> **Tip**: In the **Batch Link** wizard, click either the **Search Terms** or **Destinations** column header to bring all flagged issues to the top.

Click **Finish and Close** to close Batch Link.

Additional Resources

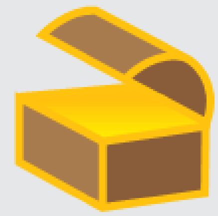
The training materials contained within this document are not comprehensive. There is much more information available in the Help file available from within Revu under the Help menu and from Bluebeam University. Click any of the links below for access to PDF and video tutorials on a variety of subjects.

PDF Creation	Navigation	File Access™	Customization
Batch Processing	Vu®	Revu 10 Interface Updates	PDF Markup
Customizing Markups	Revu 11 Markup Enhancements	PDF Editing	AutoMark™

AutoMark 2.0™

Cut Content

Markups List

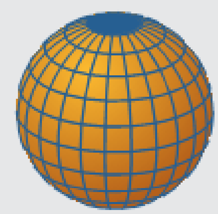


Tool Chest™

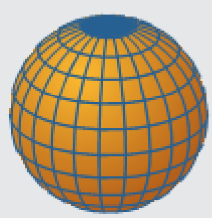
Revu 10 Tool Chest Improvements

Search

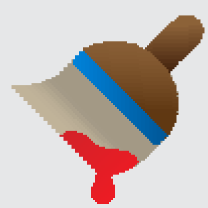
Revu 11 VisualSearch Enhancements



3D Markup



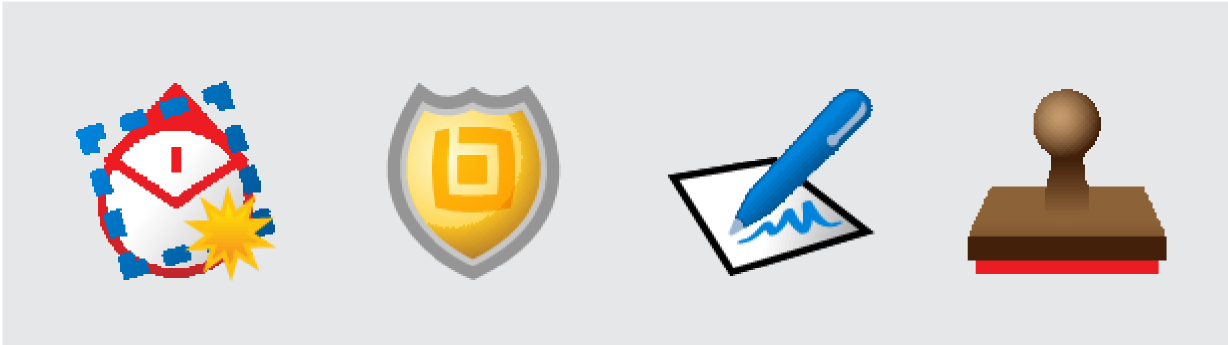
Revu 11 3D Enhance



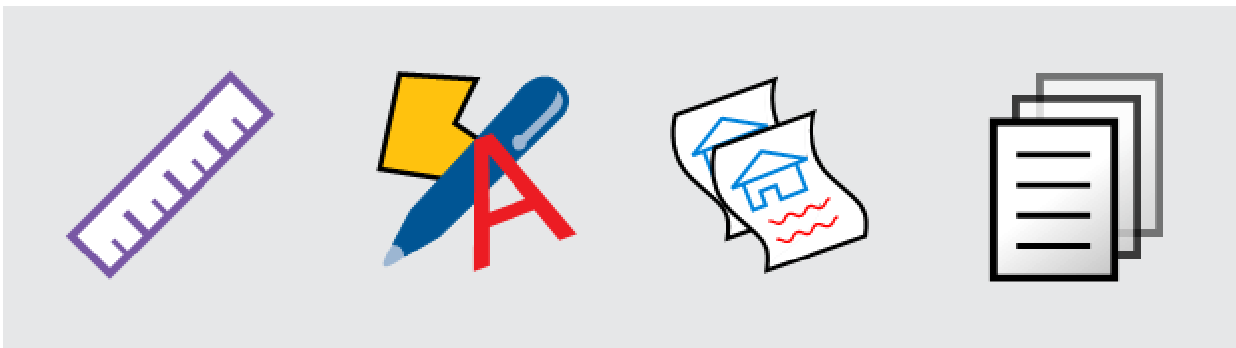
Format Painter

Custom Line Editor

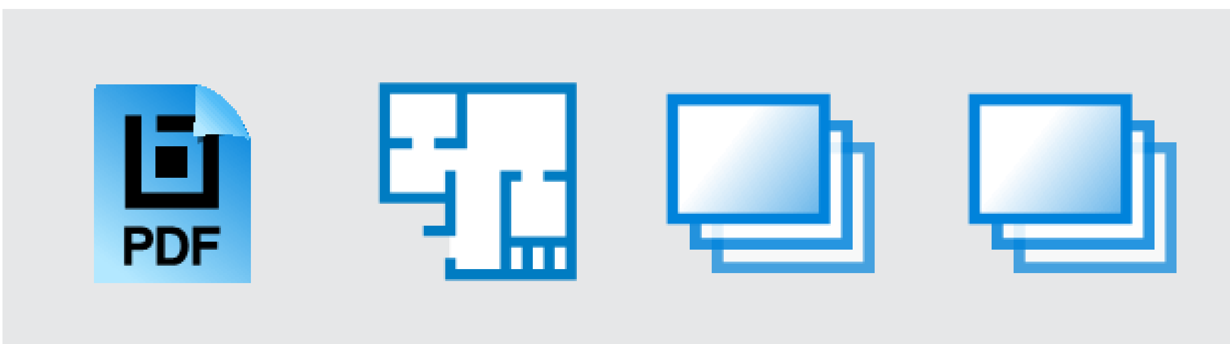
Capture



SmartGroup™ | Security & More | Digital Signatures | Stamps



PDF Measurements | Advanced Markups | Compare Documents | Revu 10 Overlay Pages Updates



Split Documents | Spaces | Sets | Sets 2.0

Link & Organize	Links & Places	Creating Layers from PDF	Revu 10 Layer Improvements
Formula Editor	Reduce File Size	Revu 12 Measuremen Enhancements	Structures™
Studio Projects	Studio Session	Outlook Integration	DMS Integration

Revit® Integration	Navisworks® Manage Integration	Sketchup Pro Plugin	Batch Link™
OCR	Redaction	PDF Forms	Scripting

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