

Bluebeam® PDF Revu®

Guide to version 7

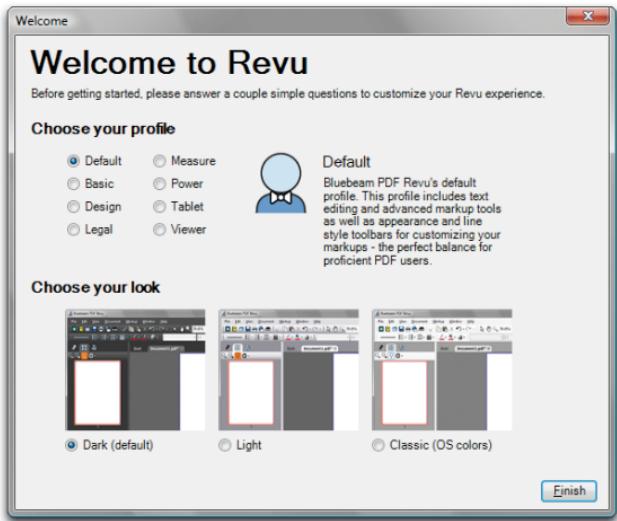
Bluebeam PDF Revu - changing your world,

one PDF at a time. Bluebeam PDF Revu was designed to change the world of PDF as we knew it. We wanted to take away the frustration, the confusion, and the anxiety associated with PDF. And, we did.

We built an application that was intuitive - it just made sense. All the markup tools you need, day in, day out, were placed right on your desktop, a click or two away. But we didn't stop there. We created break-through technologies such as Tool Chest, MultiView™, Sync, Markups list, DynamicDefault™, Profiles, and Compare Documents to make your life easier. Even better, we built Revu to be fully customizable - from the desktop Profiles to the columns in your Markups summary, Revu can be all you want it to be. And yet, with all the innovative and revolutionary features, we still felt there was something more we could do.

So, we developed the world's only PDF solution that remembers. Every annotation you make is recorded in your Tool Chest - virtually eliminating the need to do the same thing twice. As you work, Revu works. Its as simple as that.

Welcome to Bluebeam PDF Revu. Enjoy.

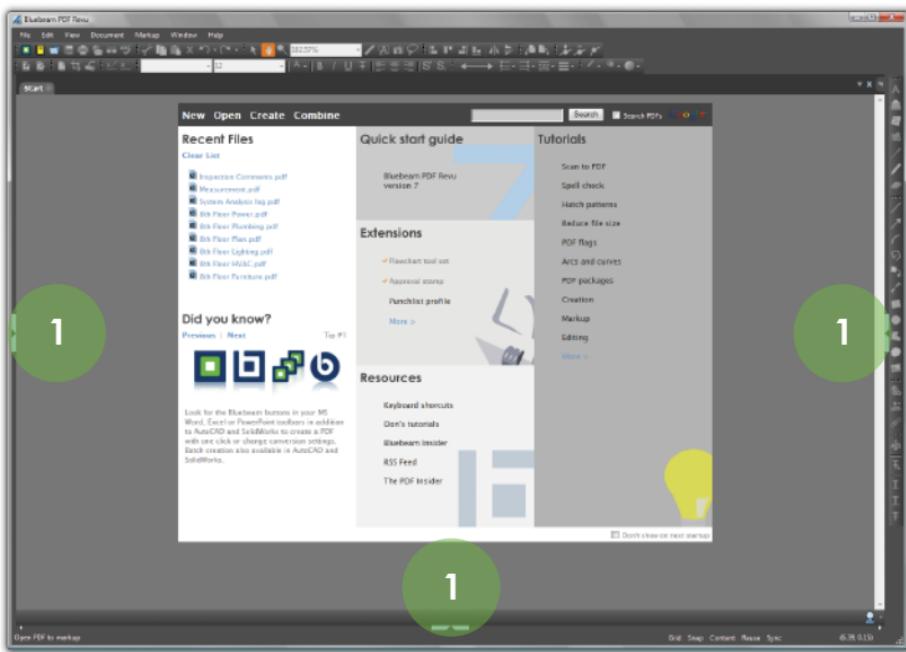


Make it your own. Get started by selecting your user Profile and your preferred desktop look.

We know that each of you who uses Bluebeam PDF Revu does so with different objectives. Regardless of your profession, work, or needs, we want to make it easy. So, eight Profiles are provided to help you get started.

The Default Profile is selected, well, by default. It includes text editing, advanced markups and other tools, perfectly balanced for the proficient user. We also include advanced Profiles for designers, lawyers, construction professionals, tablet users, or even the power users who want everything and the kitchen sink. If you wish to simply view PDF files, there's a Profile for that too. Change your mind - not to worry. Go to View/Profiles in Revu and select something else or create your own.

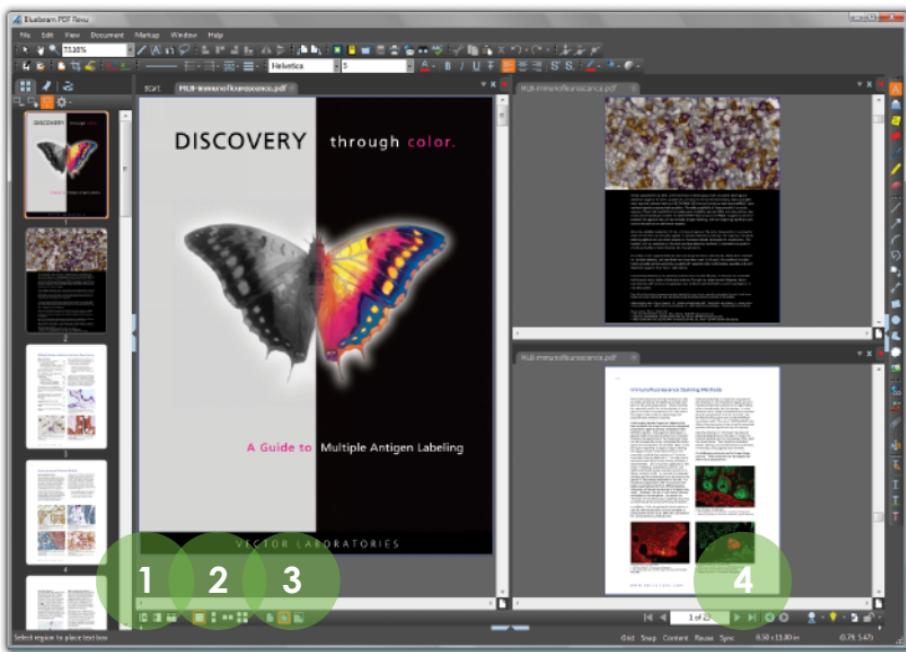
As far as the background, some of you prefer the dark look, some of you the light. The options are there for you. For those who prefer the classic look that uses Windows system colors, pick #3, or change the look later by going to Edit > Preferences > General.



Bluebeam PDF Revu. Introducing an easier, simpler PDF product that begins at the Start.

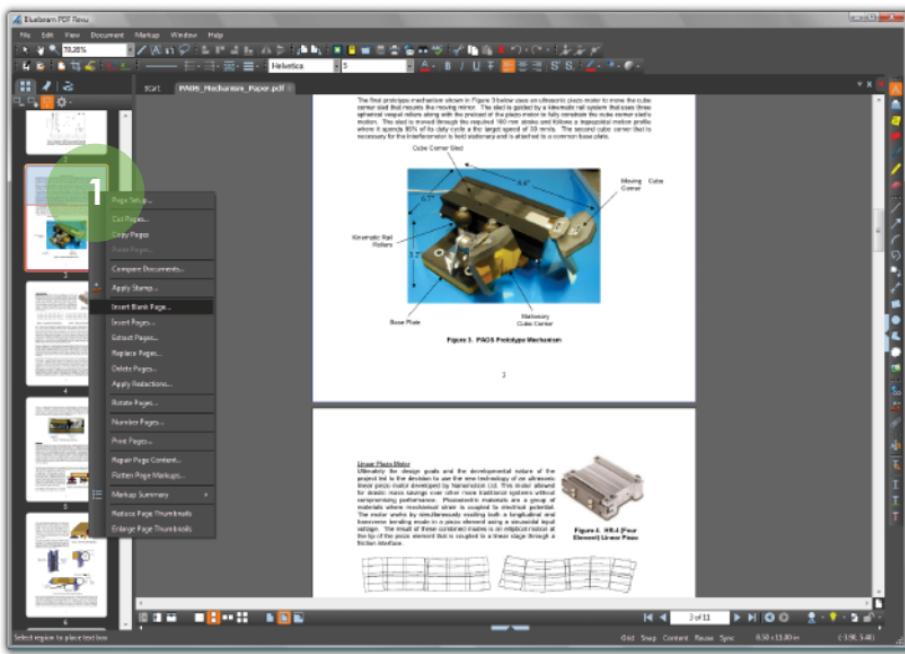
Here, you can review quick tips and tutorials, have direct access to videos and resources from our web site, or simply open, create, or begin with a new PDF file.

The Revu desktop is simple to navigate. At the top and right are toolbars (these can be moved to your preference). At the left, right, and bottom are dock panels¹ that can be opened and closed to expose tools such as Bookmarks, Thumbnails, Tool Chest, Markups, Properties, Search and so forth. Look for the little triangles in the blue box.



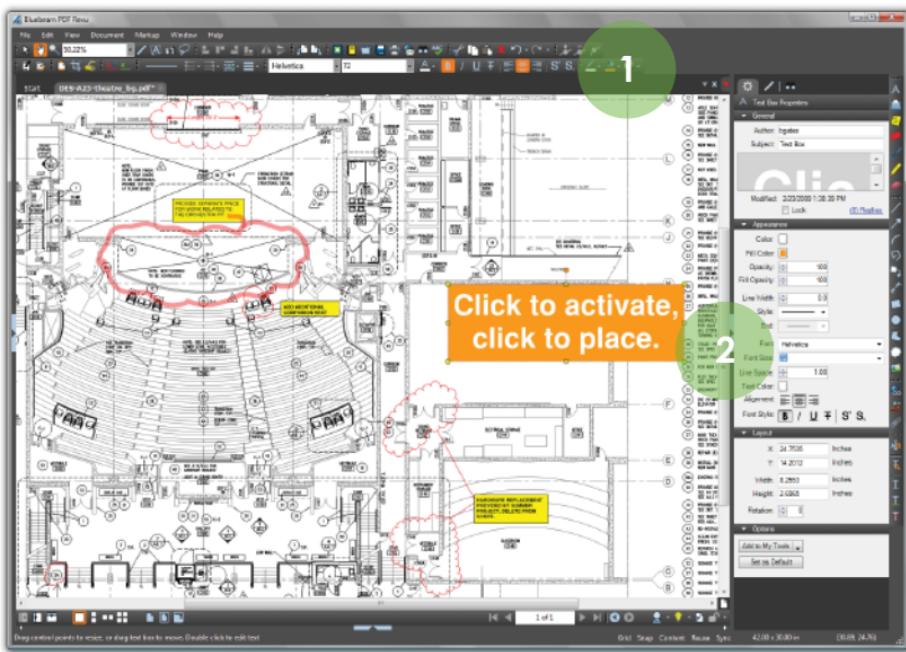
MultiView™. An innovative way to see your work sixteen times over. Why limit yourself to one tabbed view, or two, or even three, when you can split¹ your screen up to sixteen times and sync them all to pan and zoom in unison. View and compare the same document in different areas or different documents in the same area. Document review has never been easier.

In addition to MultiView, Bluebeam PDF Revu includes viewing options² to view your document in single-page mode, continuous, side-by-side, and side-by-side continuous mode. By default, single-page mode will zoom with your mouse wheel while continuous mode will scroll. Also, quickly fit to page, page width or height with buttons³ in the lower left corner. Finally, in the lower right corner, you will see navigation tools⁴ to page forward or back, jump to the beginning or end, or even jump to a previous view in history.



Page Assembly. It's just a right-click away.

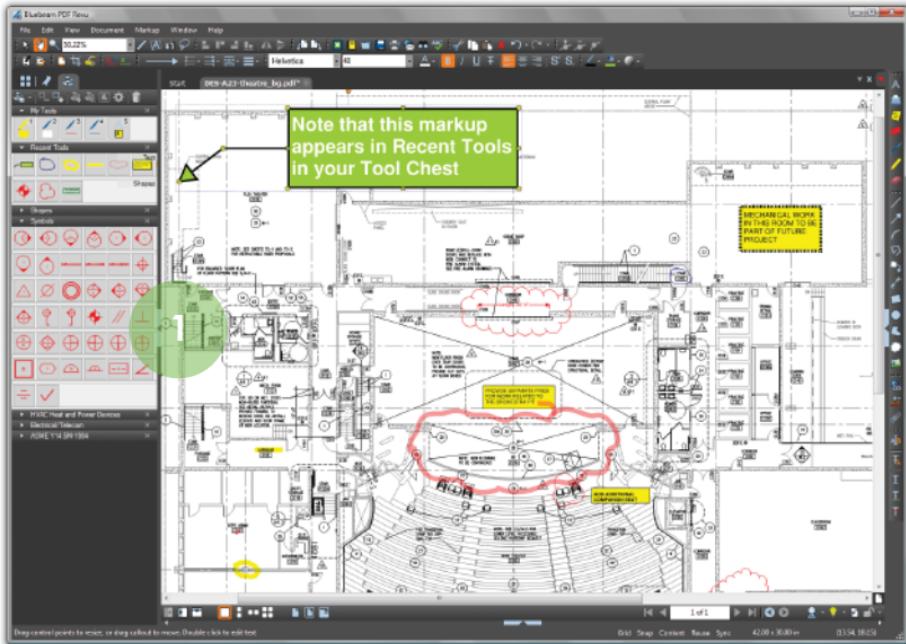
Make your document your own by combining, reordering, inserting, deleting, copying, extracting, numbering, or even rotating pages - all from the Thumbnails panel. First, reorder pages by dragging and dropping pages in your Thumbnails panel. Just click a page, hold the left mouse button, drag to a different location and release. If you need to copy a page, select the page, press Ctrl-C, go to a new location in the same or a different PDF document and press Ctrl-V. If you wish to get a little fancier, simply right-click¹ on any thumbnail view and the above menu appears. From here, you can really get carried away.



PDF Markup. Adding a comment, note, or highlight has never been easier. Point, click, an

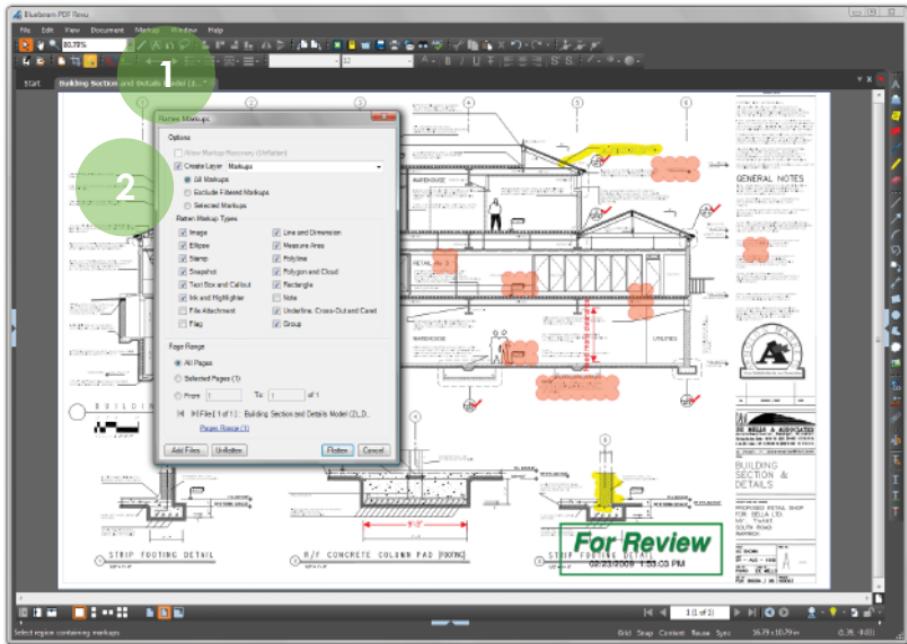
release is all you need to do. Select from any of the markup tools such as text, notes, lines, clouds, stamps, images, etc. and click on the page. If the look and feel does not suit you, change the markup properties by using the style toolbars¹ at the top of the desktop to change the color, fill, opacity, line types, or font.

Another option is the Properties panel² (View > Tabs > Properties). Here, you have centralized access to all the markup properties you can customize to meet your needs. If you like what you've created, Set as Default or even better, Add to My Tools.



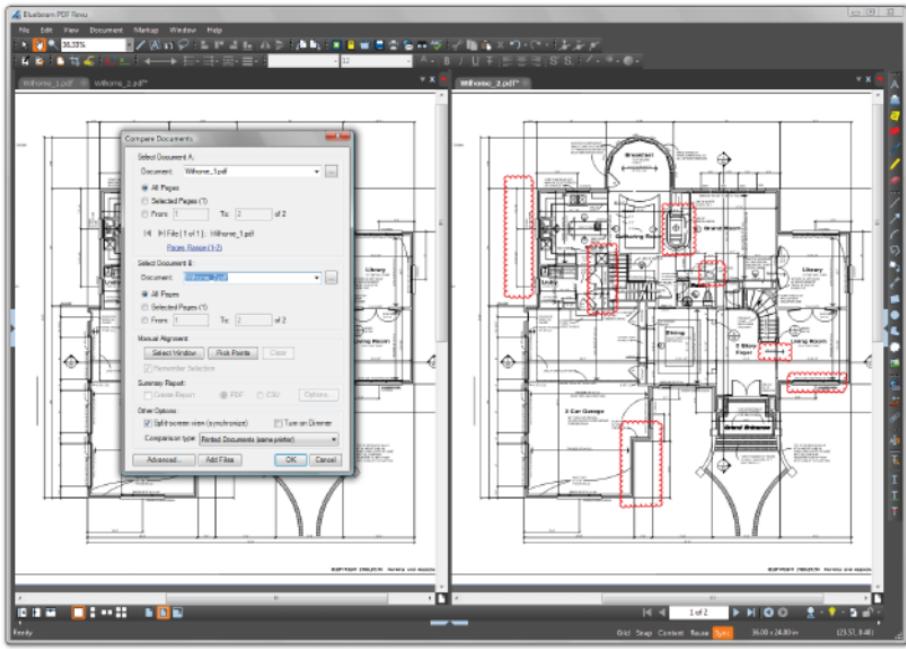
Tool Chest. Why create the same annotation again and again if you don't have to? Revu breaks new ground with Tool Chest¹, a revolutionary technology that keeps track of all your markups as you create them. As you add your comments and customize them, you have the option to drag them from Recent Tools to My Tools for use in future sessions. Double-click on the icon in the Tool Chest and you will see it switch from "Drawing Mode" to "Properties Mode." Now, create a brand new annotation using the same properties as a previous annotation. Double-click again and switch back to the Drawing Mode to replicate the markup exactly as you created it - it couldn't be any simpler.

Plus, use the Tool Chest toolbar to increase or decrease the icon sizes, add or remove tools, view the Properties panel, or manage your Tool Sets. Adding your own Tool Set is simple - click the Manage Tool Sets icon, click Add, enter a Title, click OK and see it on your list of Tool Sets. Now, drag and drop your tools from Recent Tools here to get another level of organization. It's up to you.



Flatten + Layers is brilliant. Some of you flatten markups and some of you create layered PDF files - but how many of you flatten markups into layers. Only Bluebeam has the ability to organize your markups in distinct layers that you can toggle on or off. How? It's easy. Add all the comments you like onto the PDF file. Go to Document > Flatten Markups or click on the toolbar icon¹, check off Create Layer² at the top of the dialog and enter a name for the layer. Click Flatten and be amazed. Your markups are now on their own layer that you can toggle from the Layers panel (View > Tabs > Layers, Alt-O). Repeat as needed.

If you prefer to flatten without creating a layer, just click Flatten from the menu (without checking off Create Layer) and the markup layer will be merged into the PDF content stream, i.e., into one layer. This ensures that when you, or anyone else for that matter, views or prints the PDF, your markups will be visible. Or, if you simply wish to flatten a single markup, right-click on the markup and select flatten. Simple enough? We think so.



Comparing drawings will never be the same once you give Revu a try.

Using a proprietary methodology, we automatically scale, rotate, and align two drawing revisions, then meticulously highlight all identified differences with easy to see clouds. Did I mention this was all automatic? Plus, since the clouds are markups, you can use the Markups list to step through each difference one by one.

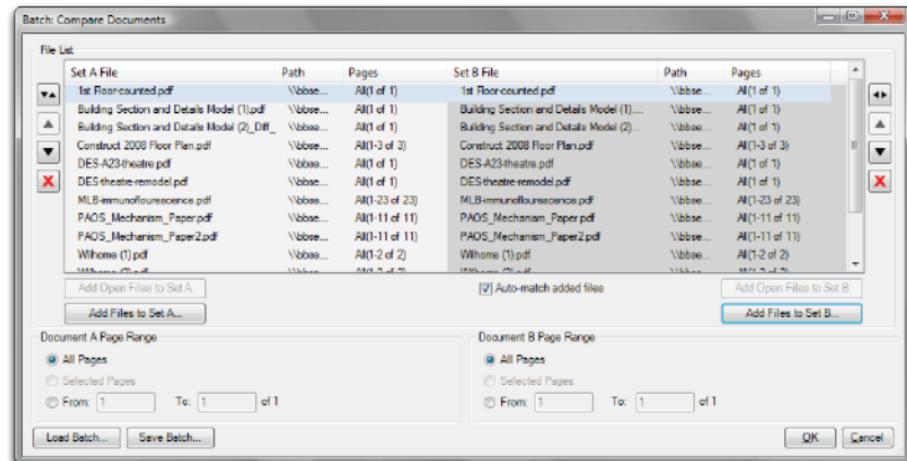
Go to Document > Compare Documents. Select the original or base document (Document A). Then select the revised document (Document B). Click OK. It's that simple. If you wish to change the appearance of the cloud markup or to select whether these are scanned PDF files, PDF files from the same printer driver or from different printer drivers, select your Comparison Type at the bottom or click Advanced for more options. It doesn't get better than that! Well, actually, it does.

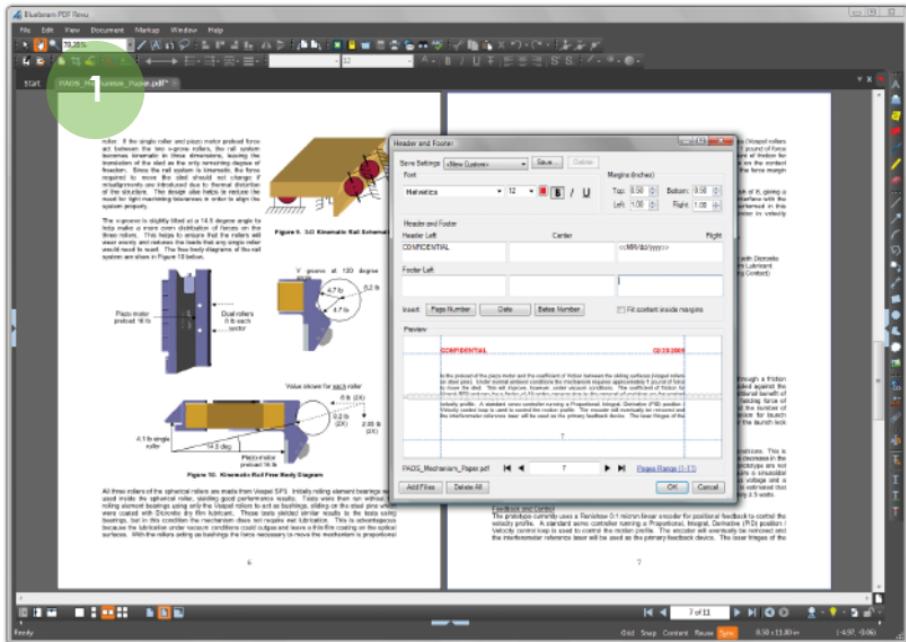
Sometimes you need to be picky. We know that viewports can shift locations, layouts change, or you would like to compare many files. With 6.0 and above, you can manually select a window¹ or viewport to compare.

Grab a window on the original drawing and Revu will compare the exact same area on the second drawing.

Or, if you wish to align two drawings manually due to a shift in the layout, select Pick Points², pick four points on each drawing and we will do the rest.

If you want to go crazy and batch compare a number of drawings, go to File > Batch Processing > Compare Documents. Load your files, line them up, and hit OK.

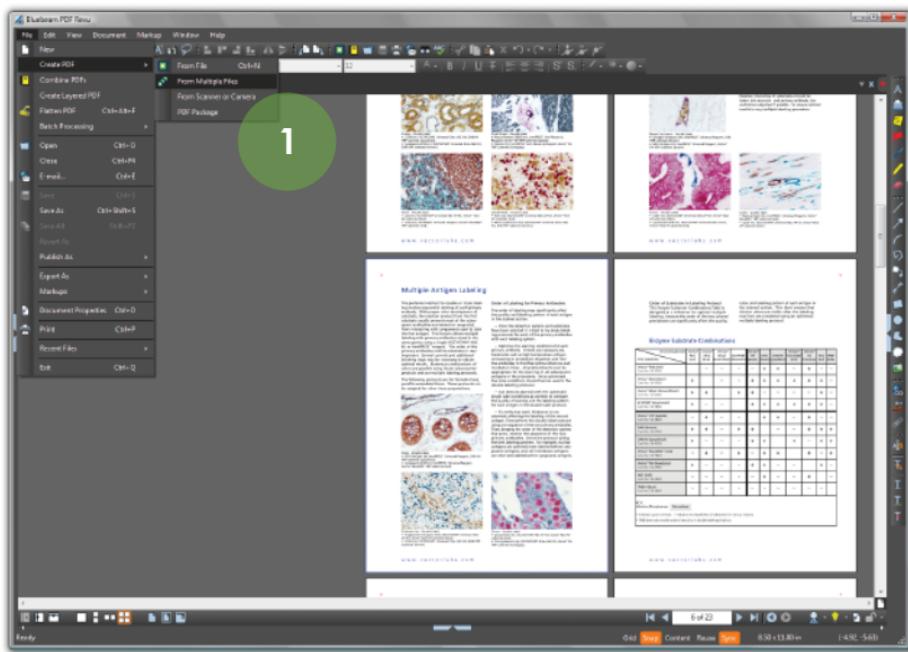




Headers, footers, date, page numbers, Bates numbers. Because sometimes you just have to leave a number.

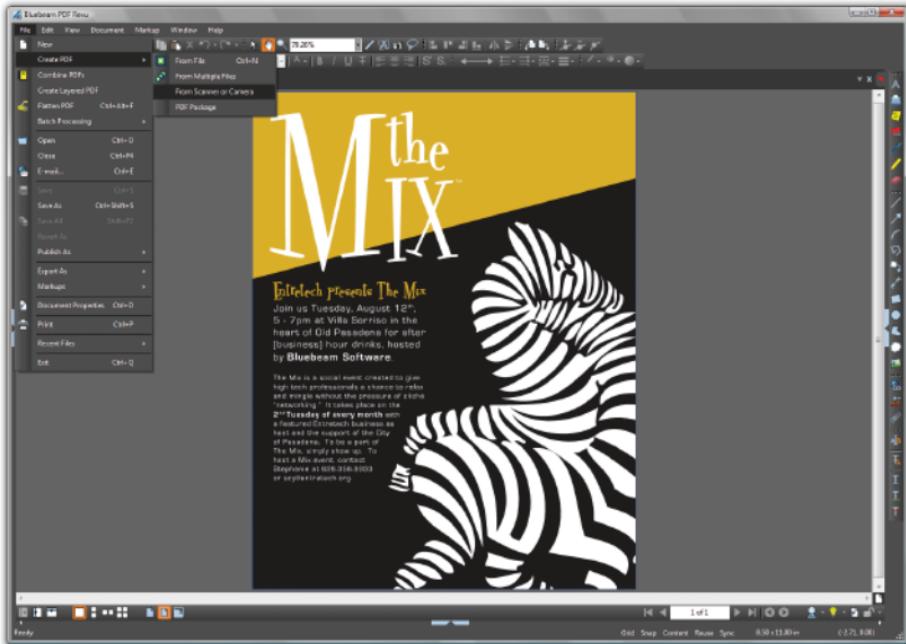
After you select Document > Headers & Footers or click on the toolbar icon¹, you can add text, page numbers, Bates numbers, or a date to your document in any of six locations. Just click in any of the six boxes and either enter custom text, or click one of the buttons for Page Number, Date, or Bates Number. Once you have done so, customize the appearance of your header or footer by editing the font. A preview will be shown in the lower half of the dialog. That's it!

If you want to add a Header or Footer to multiple documents simultaneously, just click the Add Files button in the lower left corner and select the files you wish to use. If you have already entered text, by simply adding additional files, your header or footer will automatically apply to those files as well. Use the arrow line icon to navigate between documents.



Batch Processing. A fantastic tool for processing multiple PDF files in a single transaction. If you wish to convert several documents to PDFs at once, select File > Create PDF > From Multiple Files¹. Or, if you wish to print several PDF documents in one print job, do so with Batch Processing > Print. Other batch processing features are batch Headers & Footers, Crop & Page Setup, Repair Page Content, and Flatten Markups.

The beauty of the Batch Processing tool is that you start the same way - select a group of files you wish to process together. Next, depending on the action chosen, you follow the respective menus to complete the action. For the most part, you simply select your files, select your options, and execute.



Point and click - well almost. Bluebeam PDF Revu includes a quick and simple way to create PDF files from images directly from your scanner or camera. Scan to PDF functionality reduces the number of steps needed to convert paper documents or digital camera images to PDF for electronic markup and sharing.

Make sure your scanner or camera is connected to your computer and turned on (of course). Go to the File menu and select Create PDF From Scanner or Camera. A wizard will take you through the simple process of completing the scan.

Immunofluorescence Staining Methods

Immunofluorescence staining methods can also be used successfully for labeling multiple antigens in the same preparation. There are several ways for the localization of antigens in the same compartment of a cell, and in this regard offer a distinct advantage over enzyme-based detection systems.

Traditionally, double-staining labeling has been achieved by using fluorescein-conjugated secondary against primary antibodies from different species. Although this technique in general tends to be less sensitive than enzymatic staining, the sensitivity of the immunofluorescent stain can be increased by using a streptavidin-biotin system for amplification of the label. Many of the principles regarding multiple antigen labeling are applicable to both immunofluorescence and enzymatic methods (see section on "Immunoenzymatic Staining Methods"). For best results, sequential staining of each primary antibody is necessary. In enzymatic applications, the order of labeling, appropriate dilutions, and additional blocking steps may be important to obtain optimal results. In contrast to enzymatic staining, specific cross-reactivity between the species of the primary antibodies to be used. In fluorescent applications, the two primary antibodies usually should be from different species; otherwise, faint labeling of one antigen may result. However, the use of two mouse monoclonal antibodies is the exception. See section on "Multiple Immunofluorescent Labeling Using Two or More Mouse Monoclonal Primary Antibodies".

In addition, if the streptavidin-biotin system is used for the amplification of the antigens, a streptavidin-biotin block **MUST** be used before the second primary antibody step.

Following labeling it is important to preserve the intensity of the fluorescence signal, as some tissue preparations prone to fading when viewed under the microscope. In most instances this is easily accomplished by coverslipping the preparation with an anti-fade, anti-muffling mounting medium such as DAPI mounting media. The use of VECTASHIELD® also allows the preparation to be stored for extended periods without significant loss of intensity.

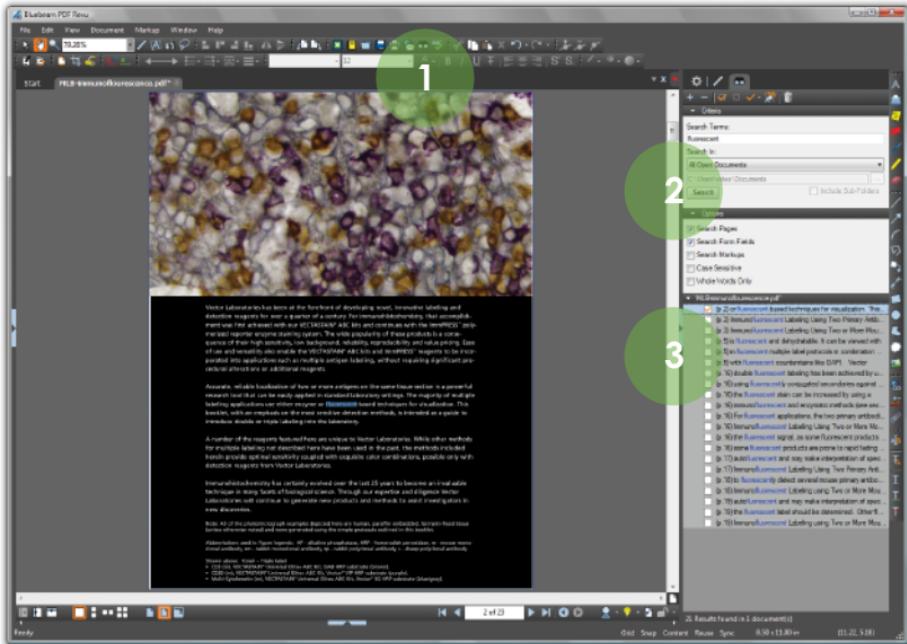
Autofluorescence of the tissue may obscure staining, especially on the low-power view, the high-power view, or the intermediate view used for visualization. This should be evaluated before staining, and autofluorescence quenched, if necessary, using appropriate methods.

The following protocols are for frozen tissue sections. These protocols can be adapted for other tissue preparations.

Color-Blends - Double layer
• Multi-Chromatix (Int. M.O.M.™ Fluorescent Kit) IgG
• Denkov Inv. M.O.M.™ Basic Kit, Bios Farb Amino-DNA mix

A callout box labeled 'Review Text' is shown, containing the text 'We may want to review this section.' A blue arrow points from the text 'We may want to review this section.' to the 'Review Text' tool icon in the toolbar.

Text Edit. If you wish to insert or remove text, insert or strikethrough text, or even just underline text, you are only a click away. From the toolbar, select the text edit function you require and you are off and running. The Edit Text¹ function allows you to insert, delete, or replace text within a PDF file (assuming the fonts are embedded). The Review Text (Shift-V) feature is great for proofreading text. Simply select the tool and begin. If you insert the cursor between text, it will add a caret with the note callout. If you highlight text, it will automatically add a strikethrough. When used in conjunction with the Reuse tool, click once and you're set until you escape. You can also add an underline (U), squiggly underline (Shift-U) or strikethrough (D) by selecting the tool from the toolbar or the Markup menu.

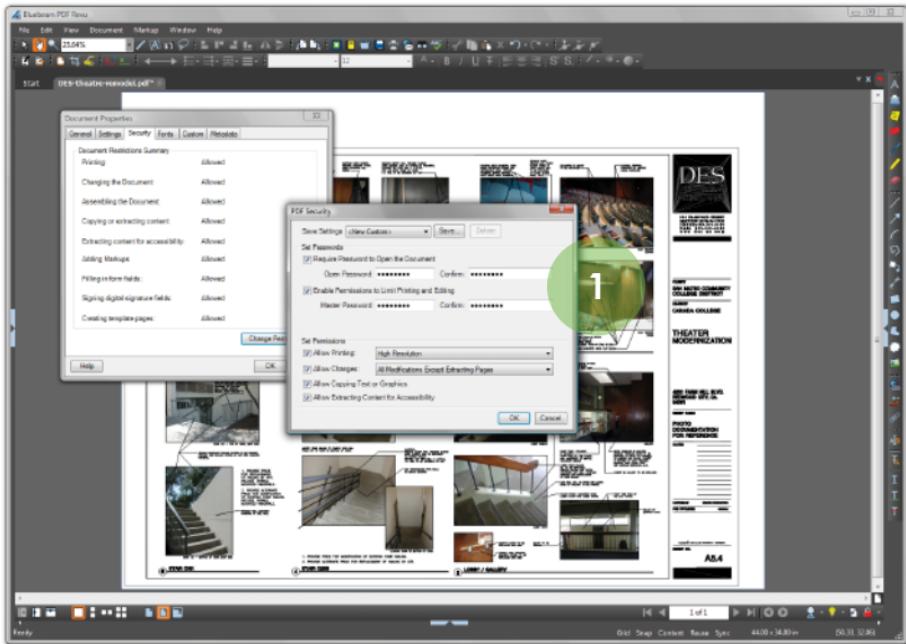


Search with ease. Bluebeam PDF Revu provides the ability to search a PDF document for both content within the PDF file and markups added to the PDF file. Select the binocular icon¹ from the toolbar or go to Edit > Search (Ctrl-F) to begin.

Type the word or phrase² you wish to find within the current document, all open documents, or even a folder. Select your options (Search Pages, Search Markups, Case Sensitive, Whole Words Only). Click Search.

The Results will appear in the lower portion of the Search panel³. Simply click on a result to be taken to the page where the search term appears. The term will be highlighted within the document.

Check the box to the left of the search result to perform an action such as: hyperlink, mark for redaction, highlight, underline, squiggly or strikethrough. Even better, you can replace the word(s) with the Replace Checked tool. What does this mean? You can use the Search function in Revu to perform batch text edits, redaction, or replacements. Wow.

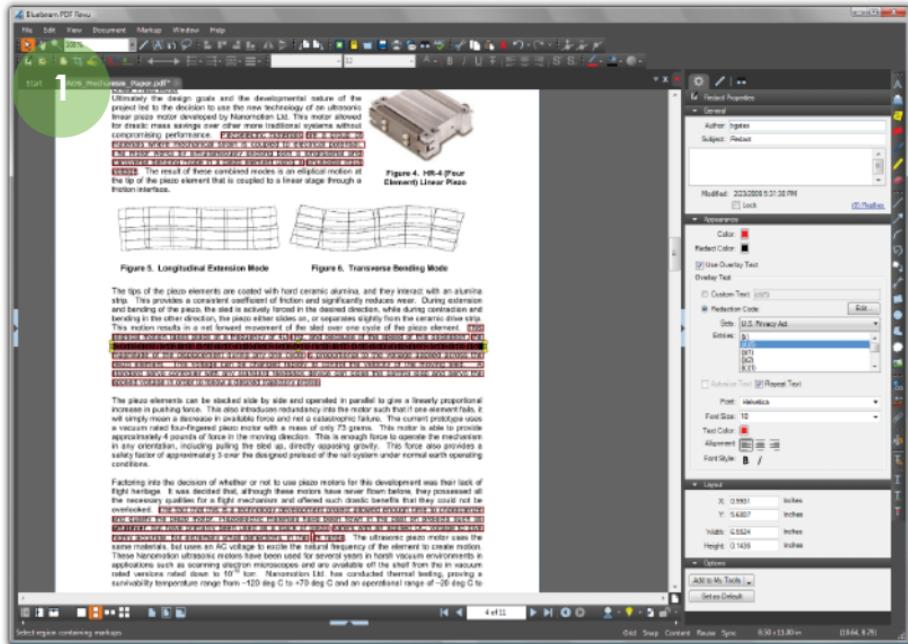


Secure your PDF. Make sure your privileged and confidential information remains that way.

Bluebeam PDF Revu provides two ways to secure your PDF file. First, require a password¹ to open (open password) the PDF file. Second, limit printing and editing a PDF file without the appropriate password. This is a great way to limit a receiver's ability to annotate or edit a PDF file unless you specifically provide them the Master Password for access.

Access the security menu by going to Document > Security, selecting the padlock icon in the lower-right corner of the desktop or pressing Ctrl-L.

But wait, there's more. Set up security profiles and use the custom settings feature to secure your PDF file in one click. Or, if you are looking to secure a number of PDF files simultaneously, use the batch-lock feature. Go to File/Batch Processing/Security.



Ultimate fine design goals and the developmental nature of the project led to the decision to use the new technology of an ultrasonic linear piezo motor developed by Nanomotion Ltd. This motor allowed the use of a much smaller and lighter motor than would have been required for a conventional DC motor, resulting in a more compact and comprehensive performance.

~~PERIODIC TESTS ARE A SOURCE OF~~

~~DETAILED MODEL INFORMATION WHICH IS USED TO DETERMINE~~

~~OPTIMUM DESIGN FOR THE SYSTEM~~

~~TESTS~~

The result of these combined modes is an elliptical motion of the top of the piezo element that is coupled to a linear stage through a friction interface.



Figure 5. Longitudinal Extension Mode



Figure 6. Transverse Bending Mode

The tips of the piezo elements are coated with hard ceramic alumina, and they interact with an alumina strip. This provides a constant coefficient of friction and significantly reduces wear. During extension and contraction, the piezo element bends in one direction, causing the alumina strip to move linearly. Due to the binding in the other direction, the piezo either slides out, or separates slightly from the ceramic drive strip. This motion results in a net forward movement of the sled over one cycle of the piezo element.

~~PERIODIC TESTS ARE A SOURCE OF~~

~~DETAILED MODEL INFORMATION WHICH IS USED TO DETERMINE~~

~~OPTIMUM DESIGN FOR THE SYSTEM~~

~~TESTS~~

The piezo elements can be stacked side by side and operated in parallel, to give a linearly proportional movement. The system has a maximum stroke of 1.5 mm, and a maximum speed of 100 mm/s. At this speed, it will simply move at a constant force and not experience failure. The current prototype uses a vacuum rated four-fingered piezo motor with a mass of only 75 grams. This motor is able to provide approximately 10 N of force at 100 mm/s. This is equivalent to the weight of a small child. This allows for use in any environment, including pulling the sled up, directly opposing gravity. This force also provides a safety factor of approximately 3 over the designed proof of the rail system under normal earth operating conditions.

Factoring into the decision of whether or not to use piezo motors for this development was their lack of light weight. It was decided that, although the piezo motors have a lower power output than DC motors, they still have the necessary qualities for a high inaccuracy and offered much drastic benefits that could not be overlooked. ~~PERIODIC TESTS ARE A SOURCE OF~~ ~~DETAILED MODEL INFORMATION WHICH IS USED TO DETERMINE~~ ~~OPTIMUM DESIGN FOR THE SYSTEM~~ ~~TESTS~~

The piezo motor used in this system is a Nanomotion model NMR-1000. The Nanomotion piezo motor uses the same basic principle as an AC voltage to cause the piezo element to expand and contract. This causes a linear motion.

These Nanomotion ultrasonic motors have been used for several years in harsh vacuum environments in applications such as scanning electron microscopes and available in various sizes and configurations.

These motors have a maximum speed of 100 mm/s, a maximum stroke of 1.5 mm, and a maximum force of 10 N.

Nanomotion has conducted thermal testing on these motors, showing a

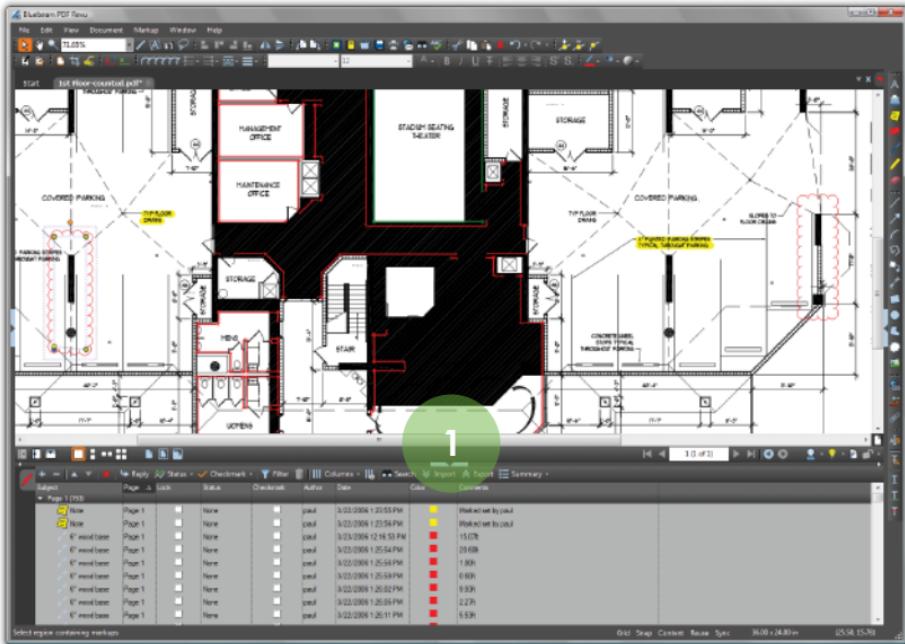
survivability temperature range from -120 deg C to +70 deg C and an operational range of -20 deg C to

Redaction. When Top Secret, or at least highly confidential, text or graphics should be permanently removed from your PDF file, you can do it.

Bluebeam PDF Revu includes a very powerful tool for securing and protecting your confidential information - Redaction. This tool allows you to permanently delete/remove content from your PDF, whether it is text or graphics. Once applied, there is no going back.

The Redaction¹ process has three steps. First, you Mark for Redaction (Shift-R) the text or graphics you wish to delete. Second, via the Properties Tab (View > Tabs > Properties), you define the appearance of the redact field. Click the redact field you wish to modify and change the appearance using the properties panel. Third, when you are ready to permanently remove the text or graphic element from your PDF file, select Apply Redaction (Shift-A) from the toolbar. The redaction is final so we recommend that you save a new copy of the document.

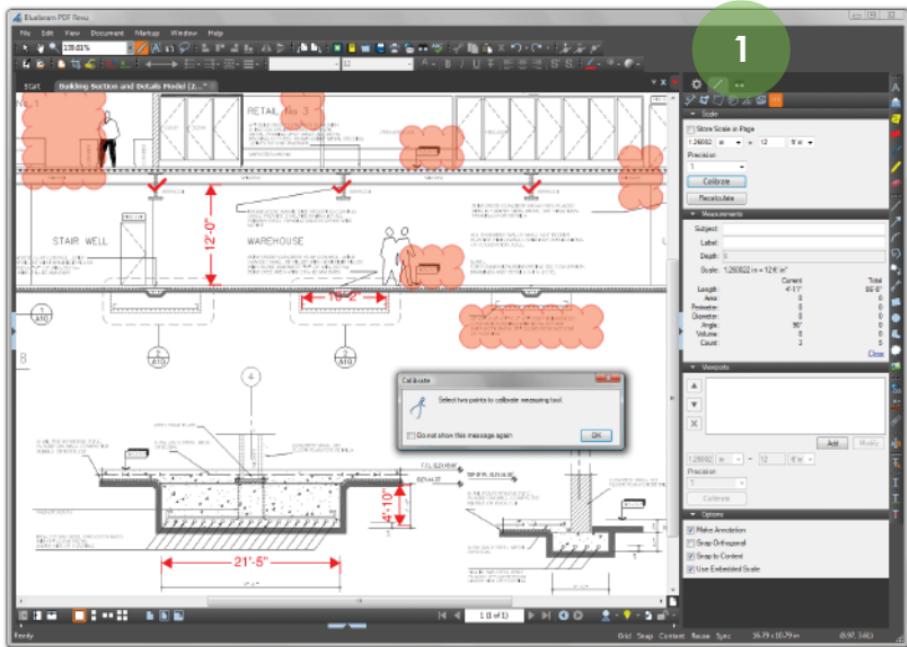
For "batch" redaction, use the Search functionality to find a term, select all or a portion of the results, and mark for redaction.



Markups list. A list, a table, and a whole

lot more. Have you ever wanted to sort a list of markups, maybe filter out unwanted records, insert your own custom columns, or just generate a summary in PDF or .csv to bring into Excel? Well, you can. Bluebeam PDF Revu has the most advanced markup tracking¹ technology on the market today.

With the ability to sort columns, filter out markups based on properties such as color, author, status, etc., as well as insert custom columns and append a markup list report to a PDF file, it truly is cutting edge. Import (or export) markups with ease as you append another reviewer's comments to yours for a composite overview. If a summary list is what you desire, click the summary button from the Markups toolbar and you will see options for a .csv, .xml, or .pdf output, or choose to print the summary to a local printer. Even better, what appears on your Markups list is what appears in your summary. Sort, filter, and include notes in the Comments field and be assured that it will be included in your summary - just what you would expect.

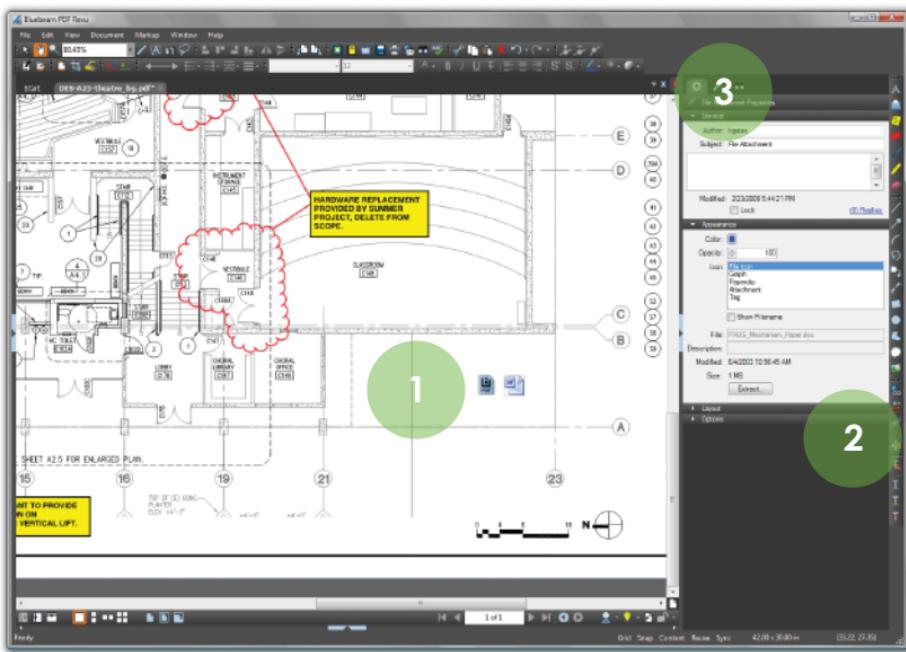


Takeoff, eh. Online measurement or takeoffs couldn't be easier.

If you are looking to count, measure length, area, volume, perimeter, or even an angle, Revu has the right tool for you. It's easy to get started - select the Measure Profile in the lower right corner of your desktop or select the Measure Tool (ruler) from your toolbars to turn on the Measurements tab¹. Your options are at the top of the tab.

To measure, click Calibrate and set the scale. Pick two points as far apart as possible (zoom into the drawing, click on the first point, use the arrows on your keyboard or hold the center mouse wheel down to pan, pick the second point), then enter the measurement. Enter a Depth to calculate the volume. Also, when counting, resume a previous count by right-clicking on the mouse and selecting "resume count" from the context menu.

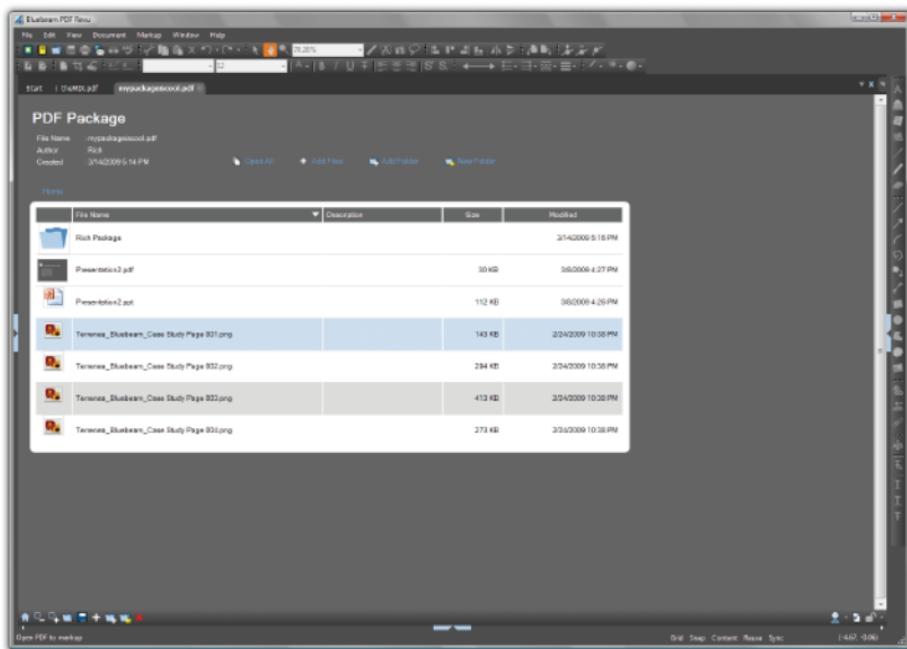
If you wish to set a different scale for a region or viewport, go to the Viewports section of the tab and click Add. Move the crosshairs (pointer) to the drawing and hold your left mouse button to define a region. Enter a name. The new Viewport will be highlighted - select Calibrate within Viewports to set the scale and you are good to go.



Attach or embed files in your PDF to create a complete package of documents for review.

Select from two options. Either insert a file into the PDF itself so that it is visible on the face of the document, or embed the file in the document without a visible icon¹.

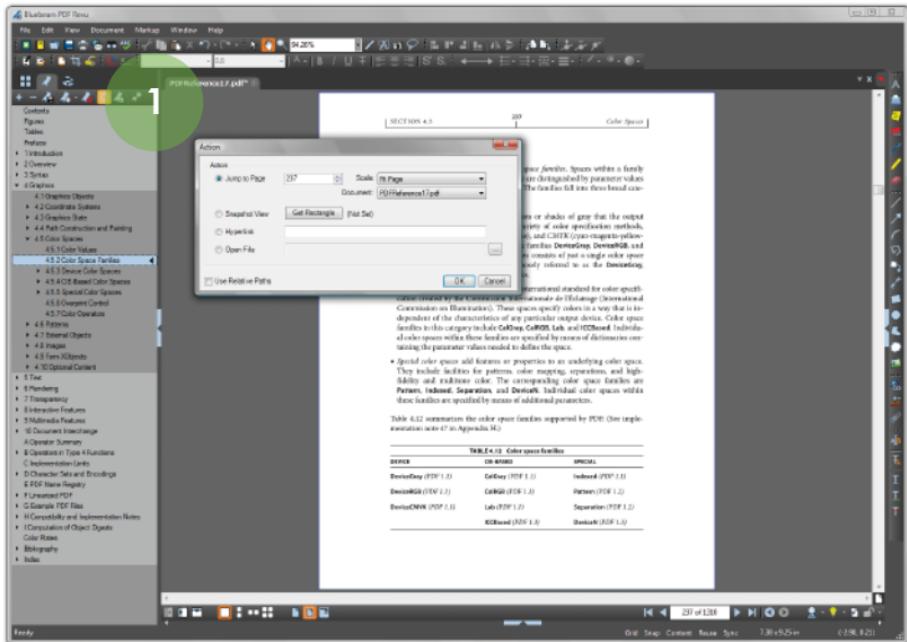
To insert a file that is visible, click the paperclip icon² from the toolbar. To embed a file in the document so that it is not visible, open up the File Properties tab (View > Tabs > Properties, Alt-P) and click the paperclip icon from the File Properties toolbar³ at the top of the tab. It's that easy.



Is it a list, a folder, a container? Yes. Yes. Yes.

PDF Packages enable you to organize project files and folders in a single PDF container to easily share them electronically. Any type of file can be wrapped into a PDF Package to deliver to clients or colleagues, then opened in its native format by the recipient. Double-click to launch a file or right-click and select Open. Its that easy.

Go to File > Create PDF > PDF Package and you are off and running. From the main screen you can Add Files, Add Folder, or create a New Folder. As you do, you will see your items appear in the table below. Again, its that easy.

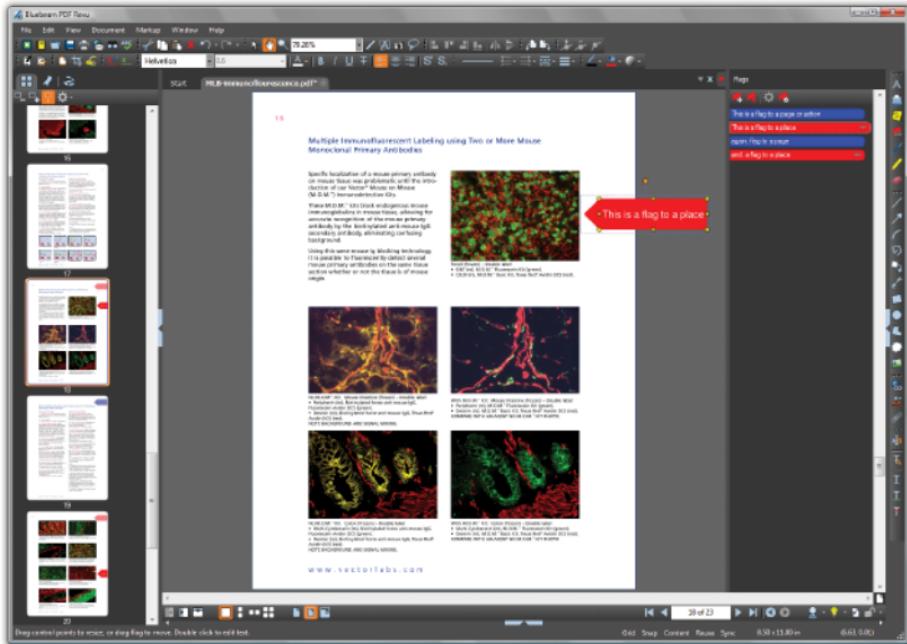


Bookmarks - more than a table of contents -

it's a way to tell your story. With Revu, bookmarks take on a life of their own. It's more than just jumping from one page to the next. A bookmark can be a designated snapshot view or window on a page, it can take you to a place on the Internet, or it can open up a file you wish to share. Just add a bookmark and apply an action.

To add a bookmark, click on the Bookmarks tab¹ in the left panel. If it is not visible, go to View > Tabs > Bookmarks (Alt-B) to open. On the top of the tab, you will notice a number of toolbars to expand and collapse bookmarks, add, delete, set an action, or even change the properties. Everything you need is just a click away.

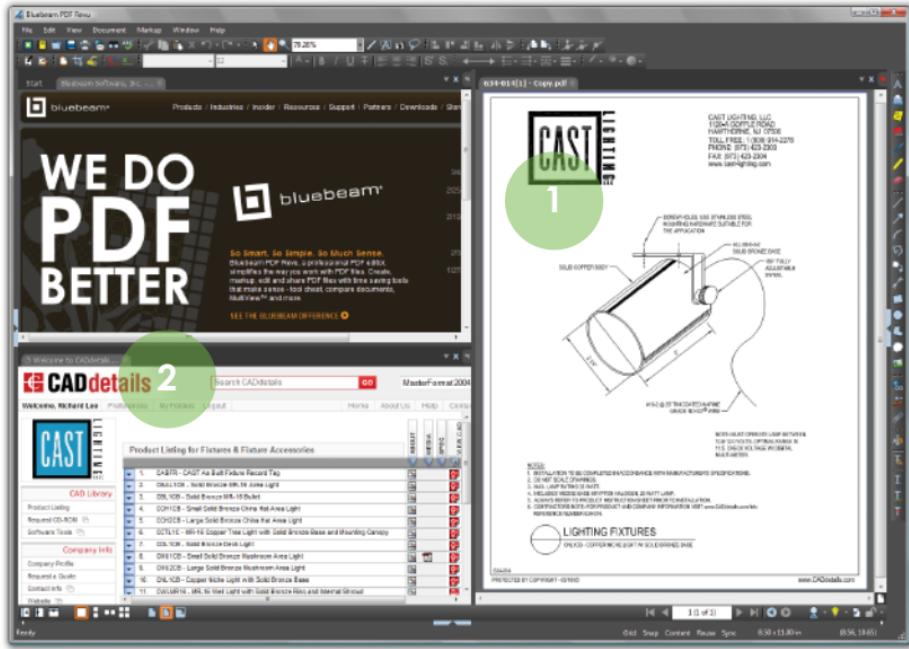
To set an action such as Snapshot View or Open File, click the gear or Action button. Select your action and go for it. If you find yourself merging files or deleting pages resulting in broken bookmarks, use the Audit Bookmarks function to automatically highlight the issues.



The few, the proud, the only PDF solution

with Flags! Like bookmarks, PDF Flags jump to a specific page, website or file. These are actions. What makes Flags special is that it can not only take you to a specific page, but there is a visual cue as to where you should be looking - i.e., the flag. So, for those of you who like to use those sticky notes to highlight sections, signature lines, or notes in a very large document, we created the same for you, electronically. Maybe we should call them sticky flags.

Look for the little red flag in the upper right corner and click on it. This illustration above shows the Flags panel open. To add a flag that places an annotation (visual Flag) on the PDF, look for the Flag icon on your toolbar. It has a little infinity symbol with it too. You can even change the appearance of the Flag by right clicking and selecting Properties. To insert a PDF flag without a visual markup, click on the Flag icon with a plus (+) in the Flags panel (shown in blue).



Access the Web in a tab - WebTab™ - genius!

Yet another Bluebeam innovation, we bring you the Internet in Revu. No longer do you have to open a separate web browser to research plans, specs, supplies, or brochures. Anything and everything you need on the Web and through the Web is accessible right from within Revu.

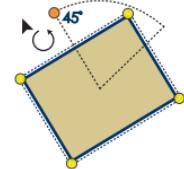
Search for whatever you need, click to open a PDF file¹, and be amazed as it automatically launches within Revu. To copy or insert pages from the PDF document, simply select the appropriate pages from the Thumbnails tab and right-click to copy (Ctrl-C) and paste (Ctrl-V) into your original PDF file. It's that easy to create a compilation, add new content to your document, or insert backup files.

Plus, we include direct access to Google, The BlueBook (suppliers, contractors, and subs), CADdetails² (drawings, specs, and product images), McMaster-Carr (465,000 products), and Sweets Catalog (building materials, products, manufacturers). Feel free to add your own home pages or favorites for easy access.

Top Tips & Secrets

from Bluebeam insiders

Rotate markups by grabbing the orange control point at the top of a markup. Hold the Shift key down to rotate to an exact angle.



Select multiple markups by using the Lasso Tool or right-click on the mouse, hold, and drag the pointer across multiple markups.

Group markups by right-clicking on them and selecting Group or by pressing Ctrl-G. Once markups are grouped, hold the Shift key down to manipulate the individual markups, release Shift and the markups will automatically regroup.



The Dimmer is very useful when reviewing markups on a color PDF. Look for the light bulb in the lower right corner of your desktop.

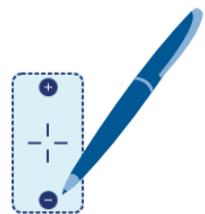
Reuse is a simple way to minimize clicks. If you plan to use the same markup annotation type repeatedly, click Reuse (right-bottom of workspace) and eliminate the need to select the same tool over and over again.

Reuse



Zoom versus page down. If you select Single Page Mode to view a document, the mouse wheel defaults to zoom in/out. If you select Continuous Mode, the center mouse wheel defaults to page scroll. You can select your default preferences in Edit > Preferences.

Tablet users can pan and zoom with their pen by double-tapping on the screen to pull up the zoom control. Drag your pen up (+) or down (-) to zoom in/out - move the pen outside of the zoom control and pan as normal. Oh, and don't forget, Revu includes pressure sensitivity and ink copy/paste interoperability with Journal™ and OneNote™.



Grid

Grid shows the grid on the workspace - the distance between points can be changed in Edit > Preferences > Grid & Snap. **Snap** will snap markup endpoints to the Grid. **Content** will snap to the underlying content (assuming content is vector). **Sync** will synchronize all split views so that you can pan and zoom multiple views of the same or different files at the same time.

Snap

Content

Sync



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