


## Best Practices for Flattening and Unflattening

Bluebeam PDF Revu allows users to flatten and unflatten markups into the PDF content. The flattening tool is effective in very specific circumstances; however in other circumstances other Revu features might provide more flexibility. This is a comprehensive guide to Flattening/Unflattening Best Practices.

### When Should I Flatten Markups?

Flattening is designed primarily to allow Revu users to distribute PDFs to users of other software, or to prevent changes to markups by other Revu users. Flattening markups will ensure that all components of the PDF are viewable and print properly in other programs. If you have edited an existing PDF and want to make your changes permanent, flattening will accomplish that as well, in a quicker and simpler manner than creating a new PDF.

When flattening markups, you can choose to allow unflattening or to flatten permanently. To allow unflattening, you must ensure Allow Markup Recovery (Unflatten) is checked when you flatten.

- On the **Document** menu, click  **Flatten Markups**.  
-or-

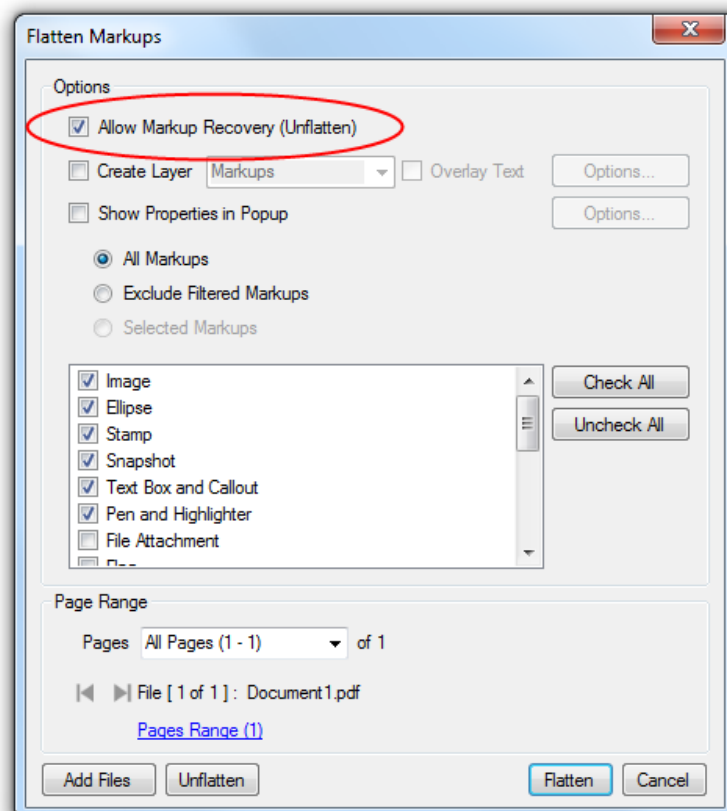
On the Toolbar, click  **Flatten Markups**.

- Check the **Allow Markup Recovery (Unflatten)** box.
- Enter the range of pages on which you want the markups flattened.
- Click **Flatten**.

You can also flatten an individual markup through the context menu. Markups flattened this way are recoverable by default.

- Right-click the Markup you wish to flatten, then click

 **Flatten**.

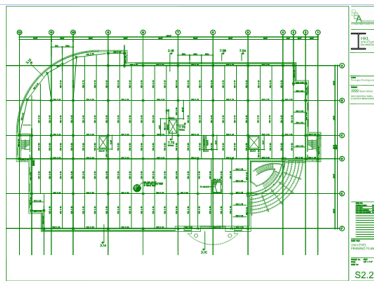


## Flattening and Layers

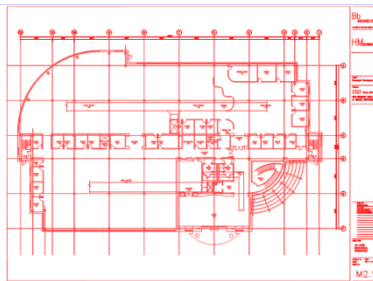
One way to use Flattening is to create layers. This can be very useful but it is important to understand how Layers work in PDFs, which is different from many design applications.

Layers in Photoshop, AutoCAD, etc. are functional: they can be understood as a stack of transparent workspaces.

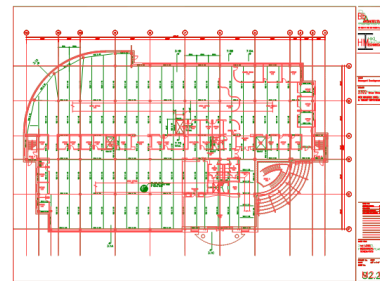
Layers in PDFs can only be toggled between Visible and Invisible. They can best be understood as a switch that is either on or off. When on, the content on the layer is displayed. When off, the content is not displayed. You cannot edit or change layers in a PDF.



Layer 1 on.

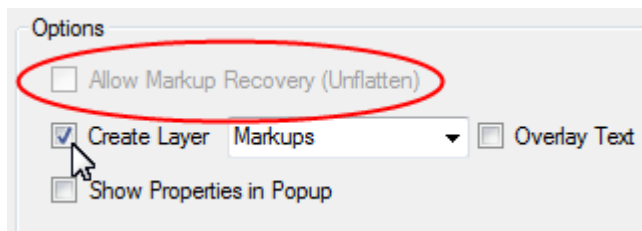


Layer 2 on.



Layers 1 and 2 on.

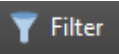

For this reason they can be of great value when making presentations of finished work, but they are not as flexible as markups. When you flatten a markup to a layer, you will notice the Allow Markup Recovery option is grayed out. This is because once you flatten to a layer, the markups cannot be unflattened. It is strongly recommended that you flatten to layers only once you are finished editing, and that you create a backup copy of your document, unflattened, before you create your layers.



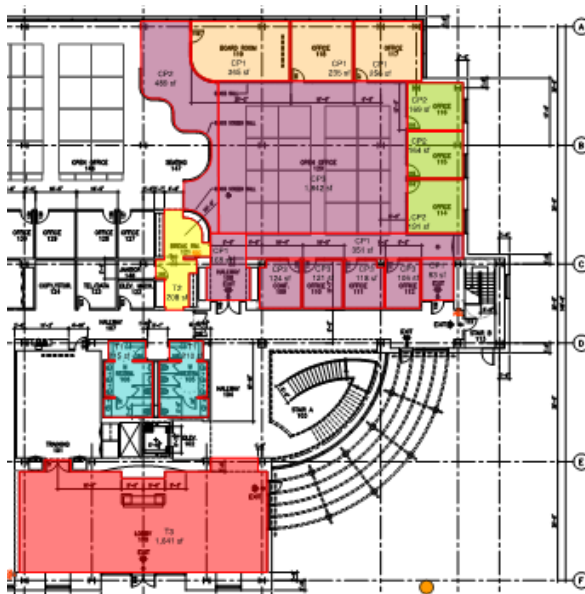
## Using Filters to Organize Markups

Another common use of flattening is to organize markups into categories, for example items that need attention and those that don't. In this case the Markups List provides a more flexible solution through the use of Filters.

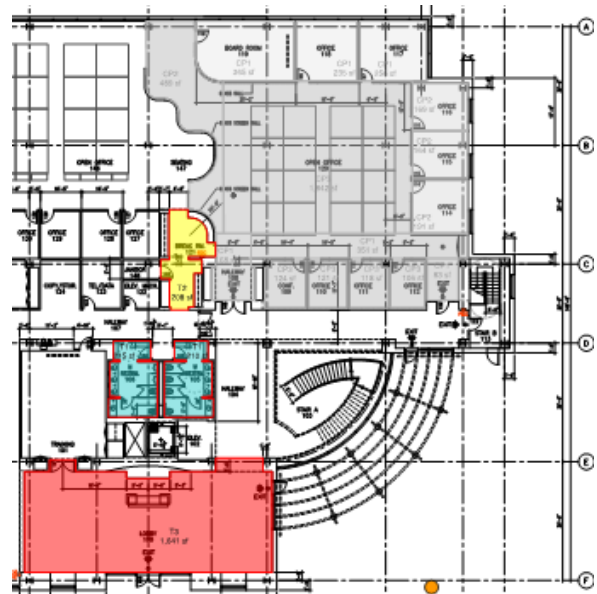
Let's say you have a PDF with a significant number of markups that is being used to back check a construction project. Most of the items are already marked as Completed, but a handful are marked Rejected and need to be redone. You need to keep all the previous markups on the page as a record, but you don't want them confusing your subcontractor. One approach would be to flatten the completed items so they do not show up in the Markups List, but there is a better way.

- In the **Markups List**, on the Button Bar, click  **Filter**.
- Click the  triangle at the right of the **Status** column header and click **Rejected**.

Now only Rejected markups will show up in the list, and the other markups will remain on the page but appear grayed out.



Original drawing, no filter.



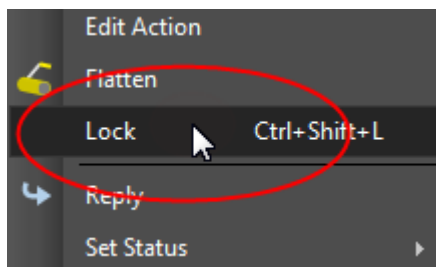
Some markups filtered.


The main advantages to filtering this way are that you can change or remove the filters at any time, and you can filter by any property in the Markups List, including custom columns you define yourself. You can filter by responsible party, page number, subject, and more.

## The Differences Between Flatten and Lock

Some users flatten markups in order to prevent accidental changes by other users viewing the documents. In this case it is recommended to use Revu's Lock feature instead. Locking markups leaves them in the editable markup space but makes it impossible for a user to accidentally modify them.

To lock or unlock a markup, right-click the markup to show a context menu, then click **Lock**.



If the markup is locked, a  check mark will display to the left of the Lock command. If unlocked, no checkmark will appear.





It is important to note that locking markups will prevent accidental changes; locking markups is not secure however because any user can unlock a markup. To secure a PDF and prevent editing by unauthorized users, PDF security is the solution. Those features are beyond the scope of this document. To learn more about securing PDFs, open Revu, click **Help > Help**, and search for *Security*.

## Best Practices for Flattening and Unflattening

When you use Flattening and Unflattening, here are some things to bear in mind.

In general, all editing must occur while the markup is Unflattened or it will lose the ability to be Unflattened again. For example, let's say you placed a symbol and flattened it, then realized you wanted to change the text displayed. There are two ways to do this. You could use Edit Text on the flattened symbol. Or you could Unflatten the symbol and edit it as a markup, then flatten it again. Both methods result in the symbol looking as you intended, but only the second method will result in a markup that can be Unflattened again.

**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**


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.

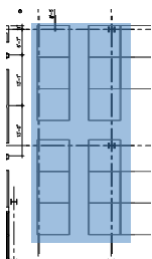
## Color Processing a Snapshot

It is recommended to use Color Processing only on PDFs that either have not yet been marked up or will not have any editing of markup after the Color Processing has been performed.

However, it is also possible to use the Change Colors command to process the colors on a snapshot of your PDF content without having to flatten it. It is recommended to use this method to change colors if you intend to edit markups later.

To use this feature, first take a snapshot of the content to process.

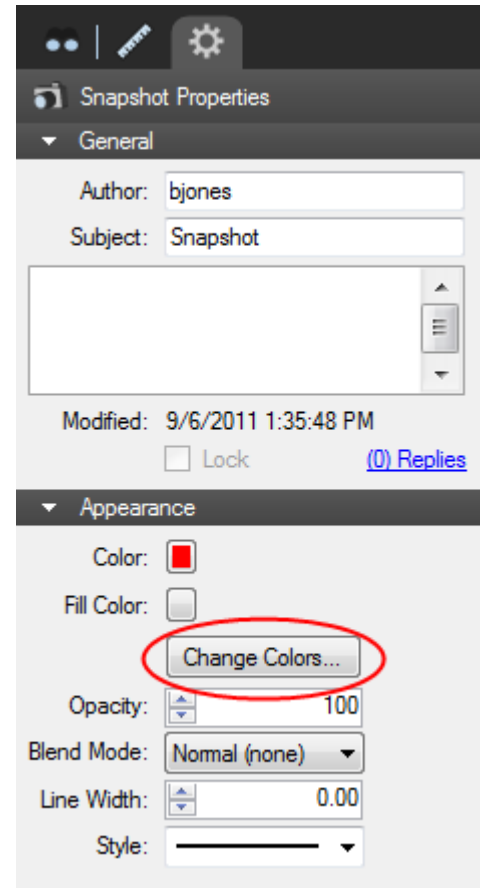
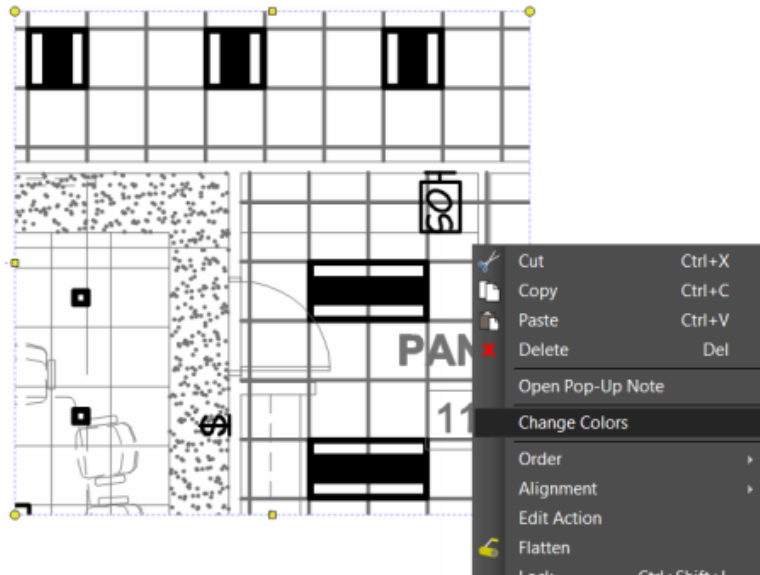
- On the Toolbar, click the  **Snapshot** button.
- Draw a box around the area you wish to process. A **blue box** will flash showing you what was copied.



- On the **Edit** menu, click **Paste** (or press **Ctrl+V**). The content you copied is now, itself, a markup.

Now you can apply color processing to the markup.

- In the **Properties** tab, click **Change Colors...**  
-or-  
Right-click the markup, then click **Change Colors**.



The Color Processing window appears. You can now apply Color Processing just as you would have on the main content, but because you are applying it only to your snapshot markup, any flattened markups remain recoverable.

