



LAB MANUAL



Lab Manual

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Pertinent and Suggested URL s



Scanning Artwork

Step 1

Open up chosen scanning program through the applications folder or through Photoshop.
(File > Import > choose a scanner)

What kind of artwork are you scanning?

- a) To scan color artwork, go to **Step 2**.
- b) To scan black and white line art or a pencil/graywash piece of artwork, go to **Step 3**.

Step 2

Settings for scanning a color image.

- a) Color artwork should be scanned at 400 dpi gray scale.
- b) No filters or descreening should be used unless there are newspaper grays – descreening applies a blurring that converts the halftone dot pattern to a gray.
- c) Keeping the file resolution small is imperative. Unlike line art, there is no need for color images to have high resolutions.
- d) Go to Step 4

Step 3

Settings for scanning line art or gray toned artwork.

- a) Black and white or gray artwork should be scanned at 600 dpi gray scale.
- b) No filters or descreening should be used unless there are newspaper grays – descreening applies a blurring that converts the halftone dot pattern to a gray.
- c) We use 600 dpi because most scanners are optical 600 so anything higher is faked. We can do the faking ourselves later. Files bigger than 600 dpi are also unnecessarily large.
- d) Go to Step 4.

Step 4

Saving conventions for files.

- a) Make no changes to the files after scanning – save immediately.
- b) Save as a TIFF using “LZW” compression. TIFFs contain the most information of the file formats. DO NOT USE JPEGs! Jpegs use lossy compression that results in an inevitable loss of quality.
- c) Use consistent naming conventions. It's best to use single or double letter combo followed by an underscore and then numerals (example : mm_002 for the second page of “My Most Secret Desire.” Some people prefer to leave off the extension for less clutter.)
- d) Consider putting an extension at the end of a file name to designate what stage of completion the image is at. If the image has just been scanned and nothing else, you could use “_raw” as an ending. If the image has been cleaned up and the line art has been separated, you could use the ending “_cln”.



Scanning Oversized Artwork

Step 1

Open up chosen scanning program through the applications folder or through Photoshop.

(File > Import > choose a scanner)

You are going to have to scan the document in pieces.

- Scan the document in two, three, or however many parts you need.
- If there are panels with a generous enough gutter, consider scanning one or two panels at a time.
- When you scan the pieces of the document, make sure that there is some overlap.
- Follow the directions of the previous scanning handout for tips on resolution and naming conventions. Consider adding the ending “_pt1”, “_pt2”, or “_pt3” to denote the different parts.

Step 2

Set up the different pieces to be combined on Photoshop.

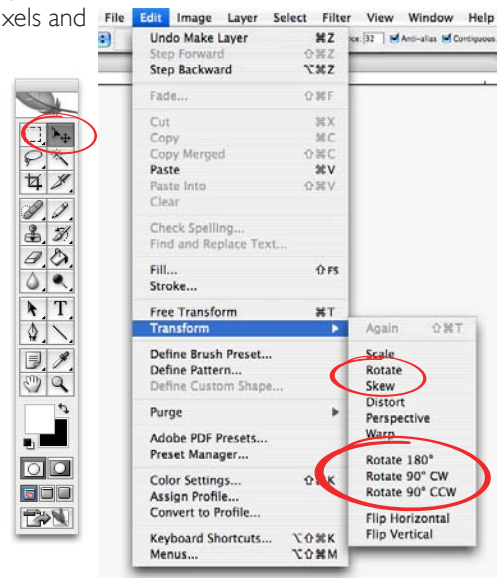
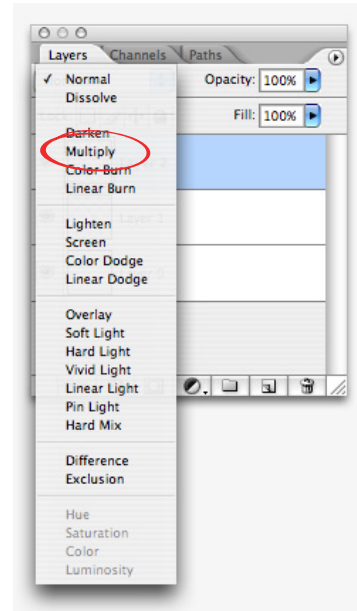
- Open up a new document. Make sure that the size of the document is 4 inches wider and taller than it needs to be. You will trim the image down later.
- Copy and paste all of the different pieces of the document to different layers.
- Set each layer type to **Multiply** so that you can see through the white pixels and help line the image up.
- Make sure the all the layers are rotated correctly so that they will match up. (Edit > Transform > Rotate _____)

Step 3

Lining up the pieces.

- Working with one layer (one piece) at a time, use the Move Tool (shown in the image to the left) to move the separate parts into position.
- If separate parts need to be managed slightly to line up, use the Rotate Tool and the Skew Tool from the Transform menu. (Edit > Transform > Rotate) or (Edit > Transform > Skew) (image shown to the right)
- Use the overlap to help line up.
- Once you are satisfied with the fit, return the layer properties from **Multiply** to **Normal**.

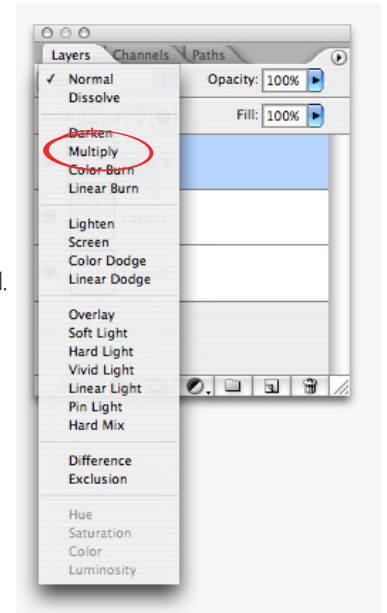
(Continued on next page)



Step 4

Flattening and cropping the document.

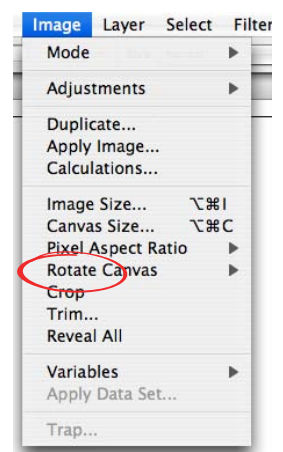
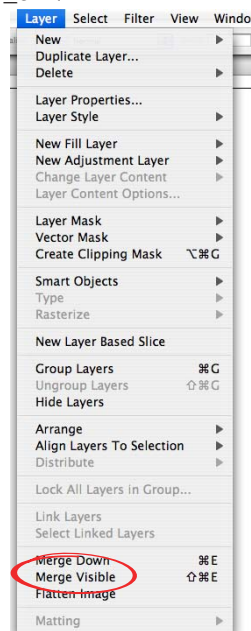
- Make sure all the layer properties are set to normal.
- Flatten the document (**Layer > Flatten Image**)
- Make any micro adjustment using the Eraser, Brush, or Pencil tool.
- Put a Rectangle Marquee around your document with whatever margins you intend.
- Crop the document (**Image > Crop**)



Step 4

Saving the combined document.

- Save as a TIFF using "LZW" compression. TIFFs contain the most information of the file formats. DO NOT USE JPEGs! Jpegs use lossy compression that results in an inevitable loss of quality.
- Use consistent naming conventions. It's best to use single or double letter combo followed by an underscore and then numerals (example : mm_002 for the second page of "My Most Secret Desire." Some people prefer to leave off the extension for less clutter.)
- Consider putting an extension at the end of a file name to designate what stage of completion the image is at. If the image has just been scanned and nothing else, you could use "_raw" as an ending. If the image has been cleaned up and the line art has been separated, you could use the ending "_cln".



Separating Line Art Using Channels

Step 1

Using Photoshop...

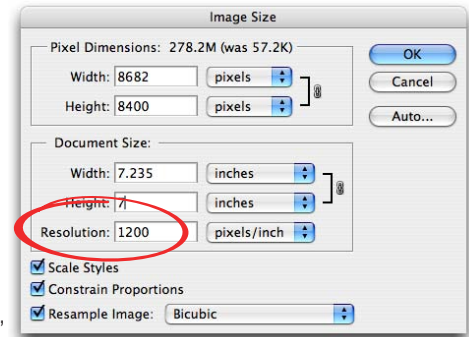
From what kind of file are you extracting line art?

- To extract line art from color file, go to **Step 2**.
- To extract line art from a black and white line art file, go to **Step 3**.
- To extract line art from a grayscale file, go to **Step 4**.

Step 2

Extracting line art from a color image.

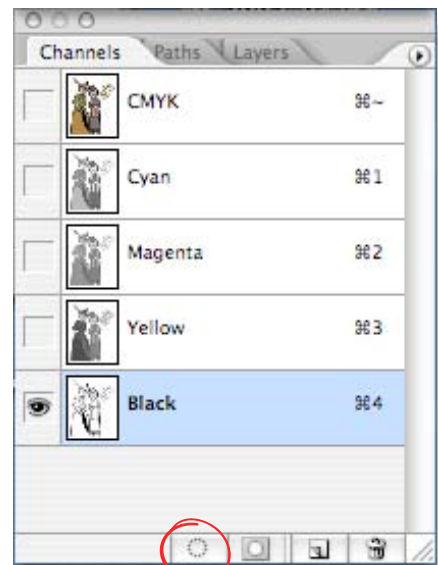
- Go to **Image > Mode**. If the image mode is **RGB Color** or **Indexed Color**, convert it to **CMYK Color**.
- Go to **Step 4**.



Step 3

Extracting line art from a bitmap image.

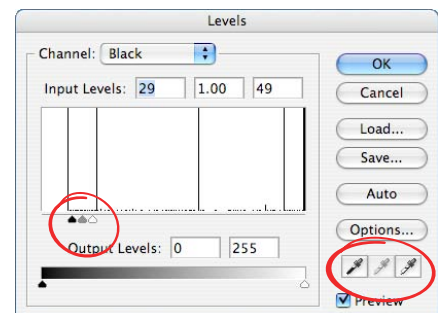
- Immediately bump the image size up to 1200 dpi. (**Image>Image Size>Resolution: 1200 dpi**)
- Adjust Threshold to tighten up lines and lose grays. (**Image>Adjustment>Threshold** or Levels then Threshold)
Threshold is often somewhere in the range of 128 (half of 256 or 50%, which means that a 49% gray will become white and 51% gray will become black. Lower than 128 (110-120 or so) will get rid of the paper noise.)
- Go to **Step 4**.



Step 4

Extracting line art from a grayscale image.

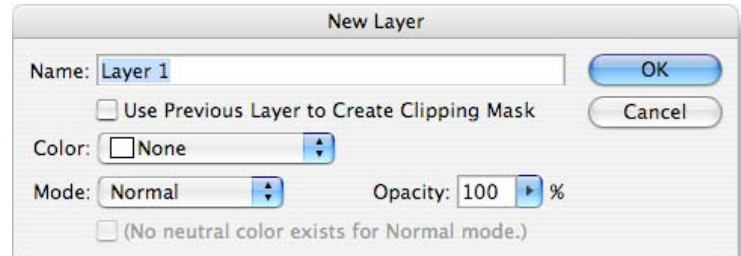
- Immediately bump the image size up to 1200 dpi.
- Click on the **Channels** tab (usually located in the same palette as the **Layers** and **Paths** tabs). Click on the **Gray** (or **Black**) channel.
- Adjust the levels in this channel only by clicking on **Image > Adjustments > Levels...** or by typing **⌘L**. Adjust the levels until the line art is completely black and all middle grays (if there are any) have disappeared. (You can always restore these tones by undoing this step after you copy the line art.)
- Adjust Brightness/Contrast to get rid of paper texture. (**Image>Adjustment>Brightness/Contrast**)
This is completely up to you. You don't want to lighten too much or you'll lose too much weight in the pencil line or wash. You can also use the eyedropper within the levels palette (**Image>Adjustment>Levels**)
- Adjust Threshold to tighten up lines and lose grays. (**Image>Adjustment>Threshold** or Levels then Threshold)
Threshold is often somewhere in the range of 128 (half of 256 or 50%, which means that a 49% gray will become white and 51% gray will become black. Lower than 128 (110-120 or so) will get rid of the paper noise.)
- Load Channel as Selection** by clicking on the button with a dotted circle at the bottom of the palette. **Invert Selection** by clicking **Select > Inverse** or by typing **⌘I**.
- Copy the selection by clicking **Edit > Copy** or typing **⌘C**.



Step 5

Placing the line art.

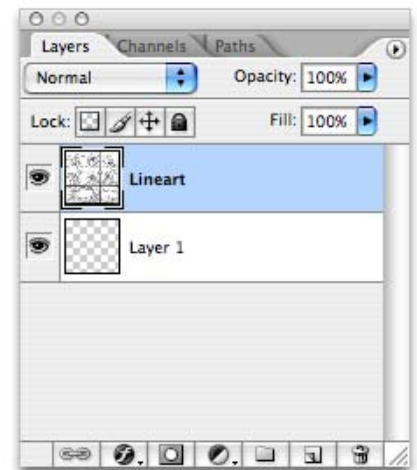
- Click on the **Layers** tab. Create a new layer by clicking on **Layer > New** or typing $\text{⌘}N$. Set the **Background Color** in the new layer to **None** and the **Mode** to **Normal**. Click **OK**.
- Paste the line art into the new layer by clicking **Edit > Paste** or typing $\text{⌘}V$. You will need to adjust the position of the line art using the **Move Tool**.
- To delete the old, unseparated line art, click on the **Background Layer** and repeat **Step 4-c**, then delete the selection.
- Rename the layer with the line art to something like "lineart". This will come into play later.



Step 6

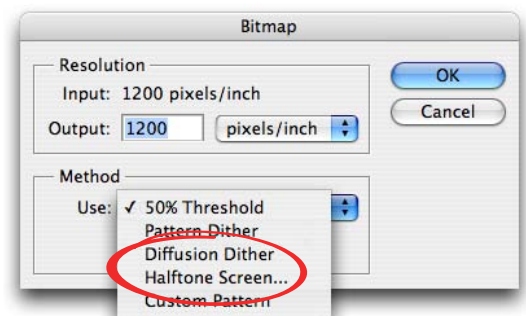
Saving and naming conventions.

- Change the file format of the image to Bitmap.
(Image>Mode>Bitmap>Resolution, Output: 1200, Method, Use: Diffusion Dither.) or (Image>Mode>Bitmap>Resolution, Output: 1200, Method, Use: Screen)
Changing your file to a Bitmap format will flatten it, reducing the file size.
- Save as a TIFF using "LZW" compression. TIFFs contain the most information of the file formats. **DO NOT USE JPEGs!** Jpegs use lossy compression that results in an inevitable loss of quality.
- Use consistent naming conventions. It's best to use single or double letter combo followed by an underscore and then numerals (example : mm_002 for the second page of "My Most Secret Desire." Some people prefer to leave off the extension for less clutter.)



Troubleshooting

- q) I can't access layers in my current setting!?
- Make sure that you aren't in bitmap mode. Bitmap mode doesn't allow for layers. If you are just printing out the line art as is, you won't have to worry about layers, but if you intend on coloring or toning the piece, this will come into play later.
- q) I'm trying all of the clean-up tricks, but I still have unwanted marks.
- Remember that the tricks can be used multiple times, in different combinations, and their effects will stack. You might want to try going in with a paint brush or eraser tool to do some detail work.



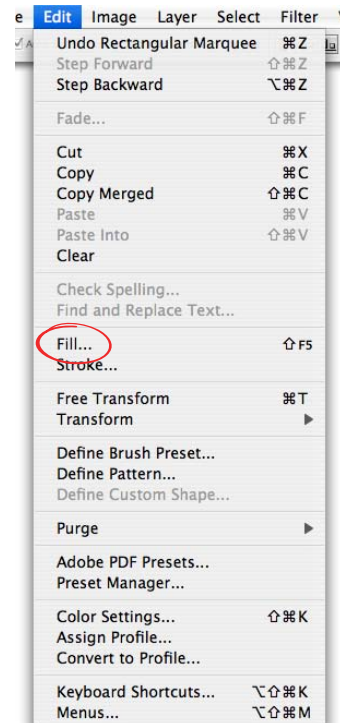
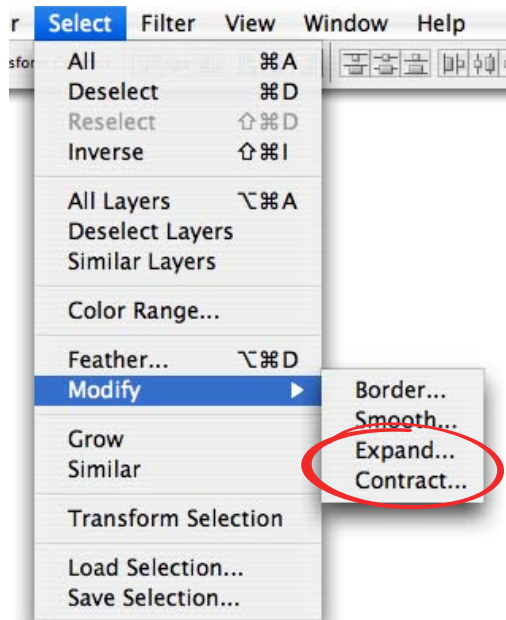
Cleaning Up Artwork

Step 1

Using the Magic wand.

The bane of all artists cleaning scanned comics are the plethora of small specks from dust, eraser lint, or pencil mark remnants. No matter how thoroughly you clean the scanner or erase your penciling there always seems to be some specks on the art. Here is a technique which can remove many of those marks in a few steps. Be warned, this useful beast can also chew through fine lines and crosshatching.

- Select area around line art with the **Magic Wand** tool (Selecting the **Contiguous** and **Sample All Layers** checkboxes)
- Expand selection by four pixels.
(**select > modify > expand 4 pixels**)
- Contract selection by eight pixels.
(**select > modify > contract 8 pixels**)
- Fill selection with white.
(**edit > fill > white**)
- Deselect. (**Select > Deselect** or **⌘D**)



Preparing Line Art for Coloring

Step 1

Open up the line art file.

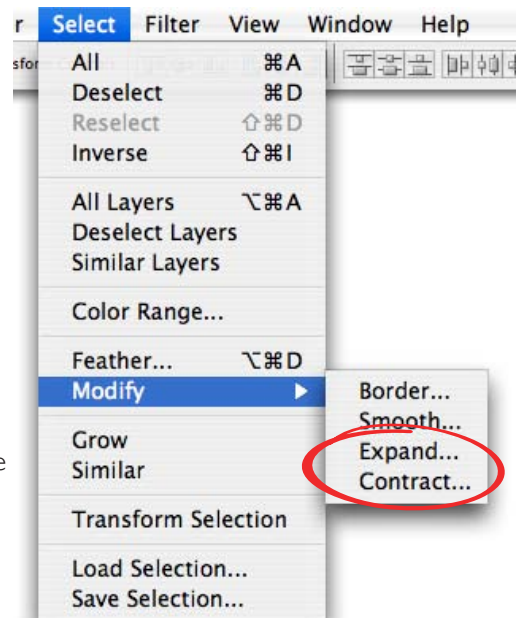
- Open clean line art file. This file should be cropped to its final size.
(**File > Open**)
- Immediately save with a new name indicating this will be a color file. (example: PW_RGB.tiff)
(**File > Save As**)
- Convert file from Bitmap to greyscale. If you are creating two color artwork leave the image as is.
(**Image > Mode > greyscale**)
- If you are creating full color art convert the greyscale image to either RGB or CMYK mode.
(**Image > Mode > RGB color**)
- Reduce dpi of illustration from 1200dpi to 400dpi.
(**Image > Image size > Resolution 400dpi**).

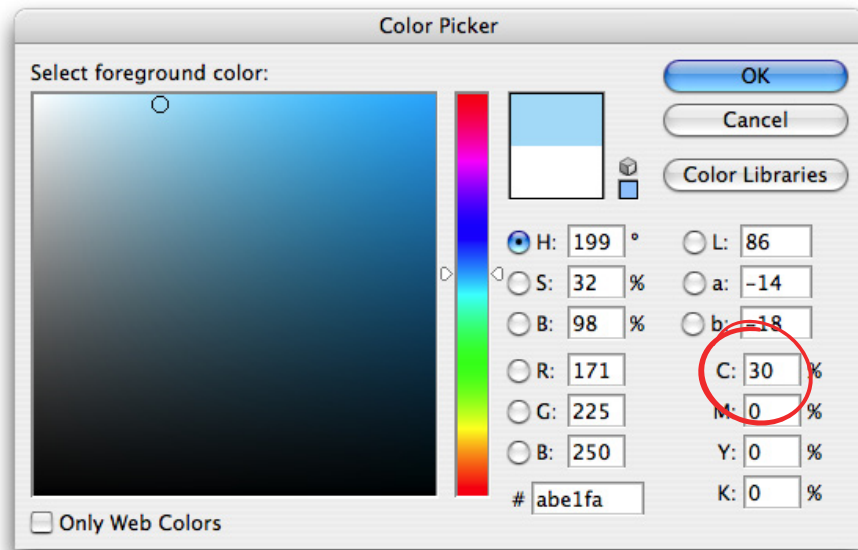


Step 2

Setting up the trapping layer.

- In the Layers palette rename the background layer to line art by double clicking on the words "Background Layer". In the new layer pop up window typing "Line Art" in the name field. At this time you should also change the layer's mode to Multiply.
- Create a new Layer.
(**Layer > New > Layer**)
Rename this layer Trapping and using the Layer Palette move it beneath the Line Art layer.
- Using the magic wand tool select all the black line art by clicking on a part of the line art with the tool. Be sure to have the Sample all Layers box checked and the Contiguous box unchecked.
- Reduce selection by one pixel.
(**Select > Modify > Contract**)
- If you are creating four color art, select a 30% percent Cyan from the color swatch palette (which might need to be made specifically for this purpose).
- Fill the selection. If you are creating two color art use 30% grey to fill the selection. (**Edit > Fill**).
- Choose Foreground Color in the Fill pop up window. Make sure the 30% Cyan was placed on the Trapping Layer not the Line Art Layer. See next page for 30% screenshot.



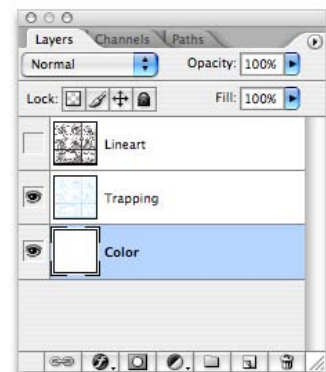


(Setting up the 30% cyan for the trapping layer.)

Step 3

Setting up the color layer.

- Create another new layer and name it Color. Then move this layer beneath the Line Art and Trapping Layer. Using a combination of tools (brush, magic wand, lasso), color the image as you like. Feel free to make as many layers as you need.
- Before compiling line art and color art in InDesign, delete Line Art layer.



Coloring Artwork Using the bpelt Filter

Step 1

Follow the steps in [Preparing Line Art for Coloring](#) covered on the previous two pages.

- Create another new layer and name it Line Art. Use the magic wand to select the line art from the Color Art Layer, copy, and paste it onto this layer.
- Hide the Line Art and Trapping layer.
- On the Color Layer fill in gaps in your line art with thin black lines. (Use the pencil tool on its smallest setting.)

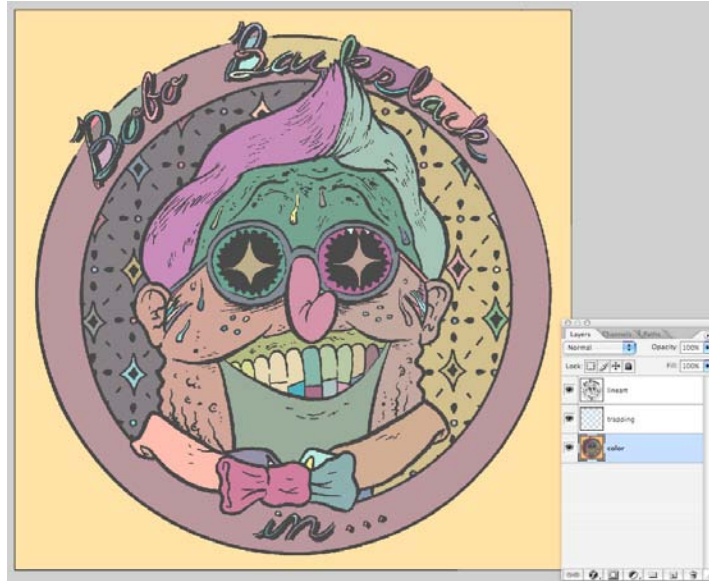
Step 2

Use the bpelt filter to fill in all the connected white areas inbetween your line art.

- When all gaps have been closed chose the Multifill filter. (Filter>Bpelt>Multifill) This will fill the white spaces between the black line art with a rainbow of colors.
- Next chose the Flatten filter. (Filter>Bpelt>Flatten) The color will fill to the center of the black art.



(Before bpelt filter effects are applied. See next page for effects)



Step 3

Use these areas to color your image.

- a) Color image using **magic wand**, **pencil**, **brushes** etc.. Use the **magic wand** to select a couple areas at one to color the same hue. Refer to the above example. If you wanted to grab all the colors in his face, select the **magic wand tool** and, while holding down the **shift key**, select all the colors that comprised his face, then replace them all with the **one** color you want.
- b) When coloring is finished make the **Trapping Layer** visible and save.

Troubleshooting

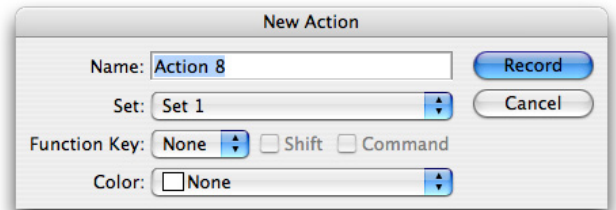
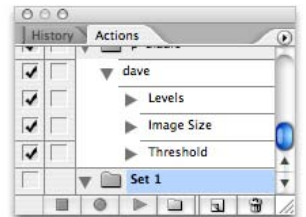
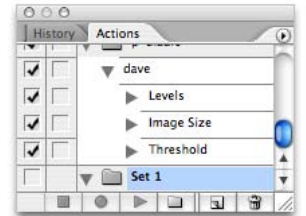
- q) When I drew the little black lines to close the shapes, they seem to have stayed even after the **bpelt flatten filter** was applied. Can I get rid of them?!
 - a) Of course. Select the **Magic Wand tool** and make sure the contiguous checkbox at the top is off. Then find that pesky little black line color and select it. The same color will be selected throughout the entire layer. Now you can safely go in with a **pencil** or **brush tool** and replace the line color with one of the surrounding colors. Make sure not to damage your **trapping layer**.
- q) Two areas that I thought were disconnected ended up being the same color once I used the **bpelt filter**. What does that mean and what can I do?
 - a) It means that the two areas are connected. If you tried to use the **paint bucket tool** to fill in the area, you would fill both areas. What you can do is go back in with the **pencil tool** and manually disconnect the two areas with a color or black, then fill the two areas separately.

Creating Actions and Batch Processing

Step 1

Create an action. As you are assembling your comic you might notice you are doing certain things over and over again. Some examples of tedious and time consuming things you might do include: changing 600dpi raw scanned art to 1200dpi, thresholding and saving line art to bitmap, expanding and filling selections, copying and pasting line art to a new layer. By making an action you create a shortcut in which a number of steps happen with one stroke of a button.

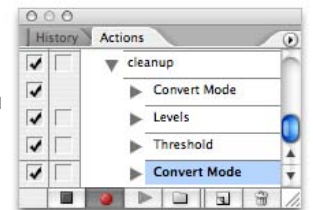
- Select the **Action Tab** in the **History Palette**. (If you don't have the History Palette open, you can find it in the Window menu at the top of the screen)
- At the bottom of the **Action Tab** you can see six buttons. From left to right **Stop Recording**, **Begin Recording**, **Play Action**, **Make New Action Folder**, **Make New Action**, and **Trash**.
- Option-alt-click** on the **Make New Action folder** button and type a name for the folder in the pop up window.
- Click on **Make New Action** button. Type a name for your action in the **Name** field. Choose which folder you want the action to be stored in with the drop down menu in the **Set** field. If this is an action you will use frequently set a function key as a shortcut.



Step 2

Recording the Action.

- Click the **Record** button. Notice the **Record Button** at the bottom of the **Action Tab** is now red. All changes made to the document will be recorded until you press the **Stop Recording Button**. You can stop and re-start recording by using the corresponding buttons. Make sure that if you make a mistake, you stop recording, fix the mistake, get back on track, and restart the recording.
- When you are finished with the changes, click on the **Stop Recording** button.



Step 3

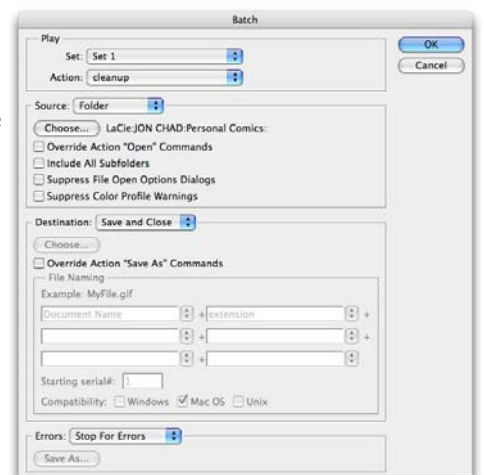
Play the action.

- To play the action while the image is open either highlight an action in the palette and press the **Play** button or use short cut key if you set one up.

Step 4

Using actions on a larger scale with Batch Processing.

- With photoshop open select batch processing. (**File > Automate > Batch**)
- In Batch pop-up window select **Action Folder** from the Set drop down list.
- Choose which Action you wish to use from the **Action** drop down list.
- Choose source of files which need to be processed.
- Choose destination.
- Click OK.



Creating a New Publication File

Step 1

Open up InDesign and enter the New Document Menu.
(File > New > Document)

Step 2

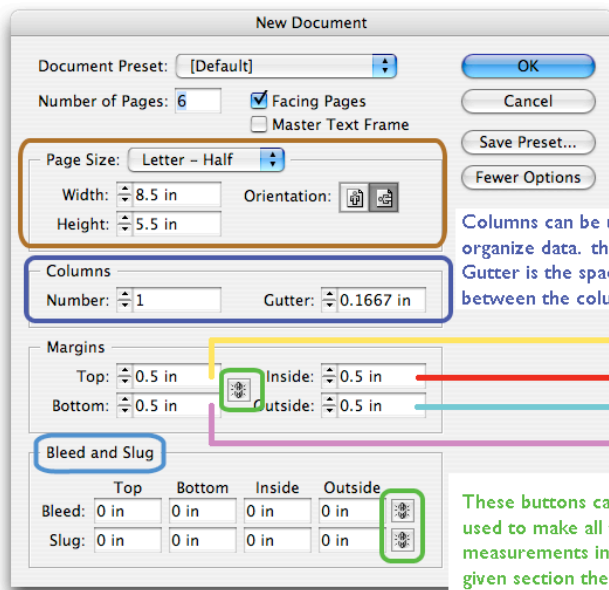
Fill out the fields to set up your document.

- Use the below chart to reference which fields correspond to which aspects of the document.
- Click OK to create the new document.

Use the drop-down menu to use preset page sizes, or set your own. Please note the difference between the page size and the SPREAD size. (Refer to right)

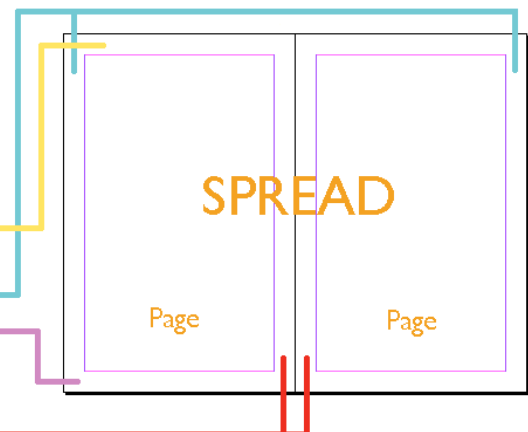
Refer to the next page on setting a Bleed.

The slug is an area around a page reserved for printers notes.



Columns can be used to organize data. the Gutter is the space in-between the columns.

These buttons can be used to make all the measurements in a given section the same.



Troubleshooting

- I'm still not getting the page size versus spread size.
- First, figure out what type of paper you want to be printing on, and what how is it going to be bound. If it is going to be saddle stitched, then you will want your pages you be **2-up** on a page (that means that there's two pages per side of paper). That means that your page must be **half the size of your paper**. Here's the quick cheat sheet:

If you want to print on: Letter (8.5 x 11) use Half Letter
Legal (8.5 x 14) use Half Legal
Tabloid (11 x 17) use Letter

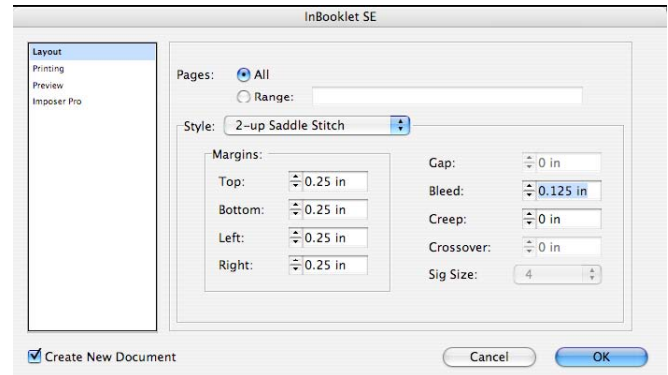
Feel free to see the Lab Tech to discuss various aspects of setting up your InDesign document.

Setting Up an Image Bleed

Step 1

Set up the bleed when laying out your document.

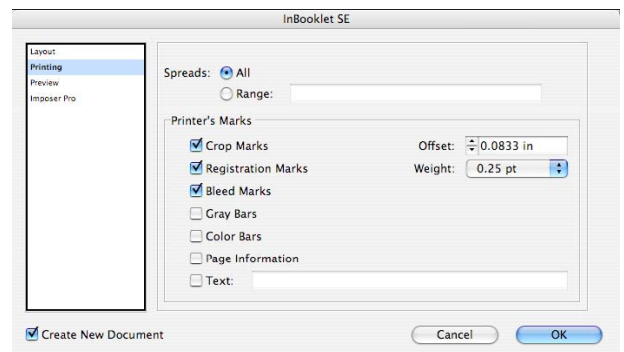
- When creating the document in InDesign, your page size should be the **final trim size** (i.e., the size you want the book to be once everything is done).
- Lay out the images so they extend of an inch beyond the outer edge(s) of the page. Never set up a bleed along the inside edge of the page.
- Lay out your entire document with bleeds, then...
 - if you are producing a saddle-stitch booklet or a handsewn roundback or flatback yourself, proceed to Step 2.
 - if you are producing a book yourself using comb, wire, spiral, velo or perfect binding, or if your book will be professionally bound, proceed to Step 3.



Step 2

Preparing bleeds for a saddle-stitch booklet in InBooklet SE or Print Booklet.

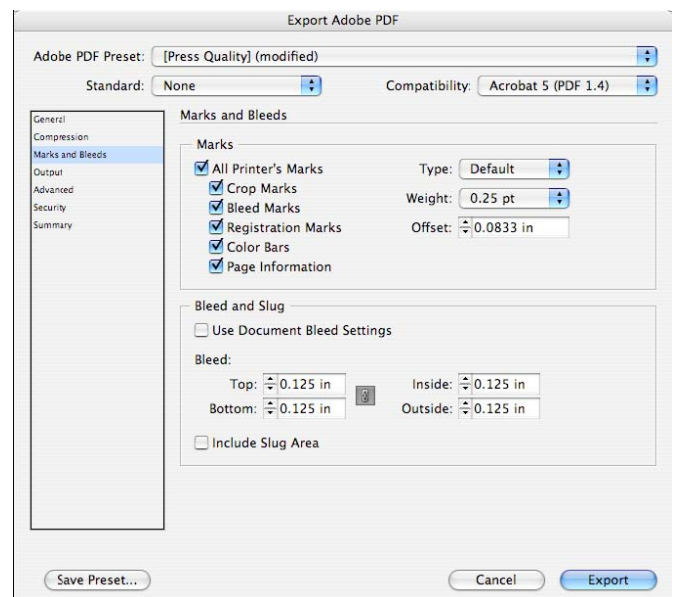
- For information about **InBooklet** and **Print Booklet**, refer to pages 17 and 18.
- Set all margins to .25 inches and set bleed at .125 inches. All other values should be 0.
- Make sure Crop Marks, Registration Marks and Bleed Marks are activated**; you can print the other Printers Marks as well, but they aren't necessary.
- With **InBooklet**, check the box in the bottom left-hand corner for **Create New Document** and click **OK**, and after the New Document is created, **export the document to PDF** as normal. Do not create new printers marks when creating the PDF. With **Print Booklet**, just click **OK** and you will create a PDF, not a new InDesign file.



Step 3

Preparing bleeds for loose-leaf or professional bindery.

- Go to **File > Export** to create a PDF. In the **Export PDF dialog box**, select the type of PDF you wish to export (probably **Print or Press**) and then click on **Marks and Bleeds**.
- Click the check box next to **All Printers Marks**. Underneath, set all bleeds to .125 in.
- Export and print PDF as normal.



Setting Up a Text Wrap


Step 1

Place your text.

- Place your text in InDesign as normal, leaving enough room to include your graphics later, typically about a quarter page per image.
- Make sure all your text frames are properly linked to each other. Inserting graphics will rearrange your text to some extent, so any irregularities in text flow can create problems.

Step 2

Place your artwork.

- Go to the page where you want to place the artwork, and then type $\text{⌘}A$ to **Deselect All** (otherwise, the artwork will replace the content of whatever frame is selected).
- Go to **File > Place...** or type $\text{⌘}D$, and select the artwork you want to place from the menu. When you place the artwork, make sure the **Loaded Graphics Icon**  is not bounded by parentheses – when this happens, it means the graphic you are inserting will be placed into an existing frame (and replace the content of that frame) rather than create a new one.
- Click where you want the top left corner of your imported graphic to be. You may need to resize your image.

Step 3

Wrap text around your artwork.

- Make sure your artwork is selected.
- Go to **Window > Text Wrap** or type $\text{⌘}W$ to open the **Text Wrap Pane**.
- There are five settings in the Text Wrap Pane:



No Text Wrap

Use this option to allow text to pass through the graphic.



Wrap Around Bounding Box

Use this option to make text flow around the graphic or around the **Bounding Box** (see below).



Wrap Around Object Shape

Use this option to wrap text around a shaped object, such as a circle or an irregular form.



Jump Object

Use this option to make text “jump” an object, so that text does not appear to either side of the object, only above and below.



Jump to Next Column

Use this option to make text “jump” to the next column, so that text does not appear to either side or below the object, and flows instead to the next text frame.

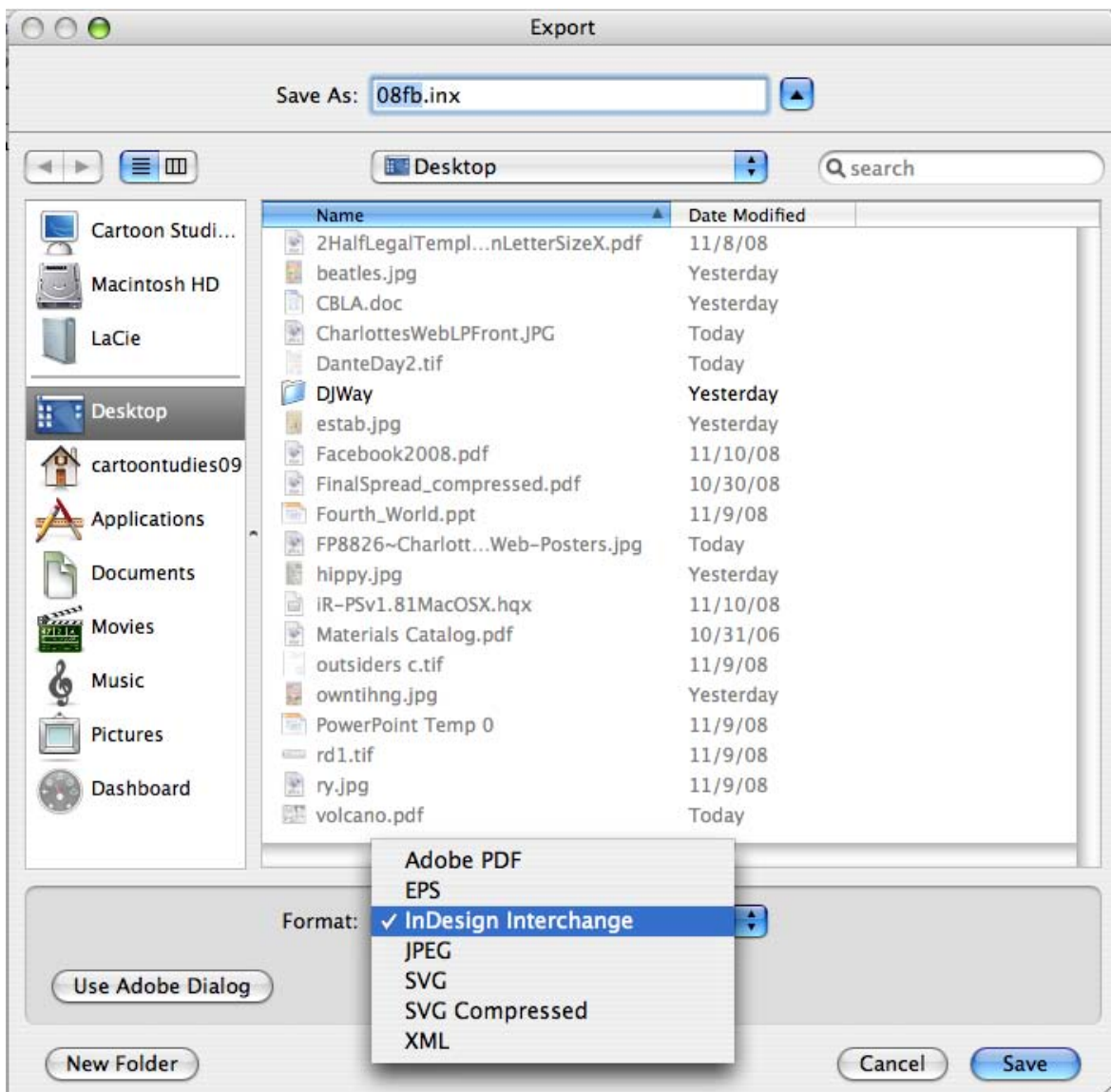
- To set your **Bounding Box** (the invisible frame that defines how far from your image text stops), use the buttons below the **Text Wrap Settings**. Typically, one eighth of an inch (.125) on all sides is sufficient.

Making InDesign Files Backwards and Forwards Compatible Using inx Files

Step 1

Open your InDesign file.

- Double check all of your settings and document presets.
- Save your file normally as an .indd (InDesign Document)
- Click on File > Export, and then click on the drop-menu at the bottom and select "InDesign Interchange" (.inx) as the file type you want to export as. (Refer to image below)
- Your InDesign document is now backwards and forwards compatible.



Creating a PDF from InDesign

Step 1

Open up the InDesign document you want to create a pdf from. (File > Open)

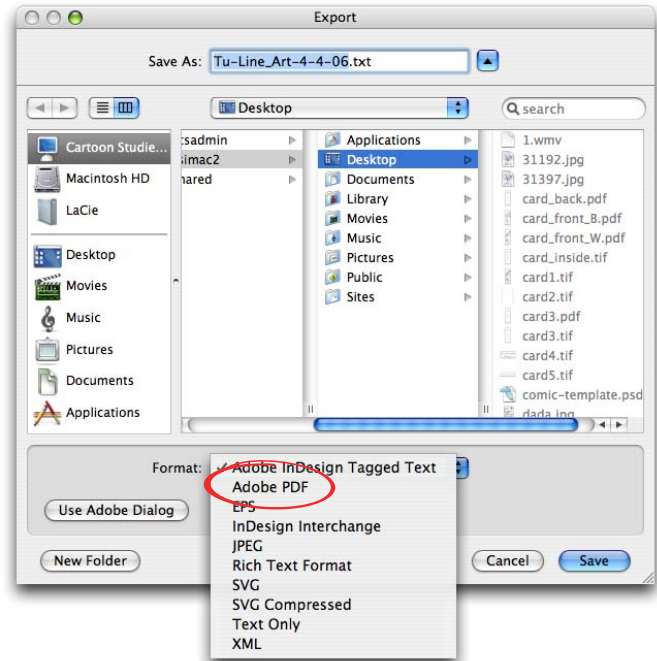
What kind of InDesign document are you trying to export?

- To export a document of **single sheets**, proceed to **Step 2**.
- To export a series of single sheets as a pdf in **spreads**, use **InBooklet SE** or **Print Booklet** as explained on **pages 17 and 18** and then return to this page and the proceed to **Step 2**.

Step 2

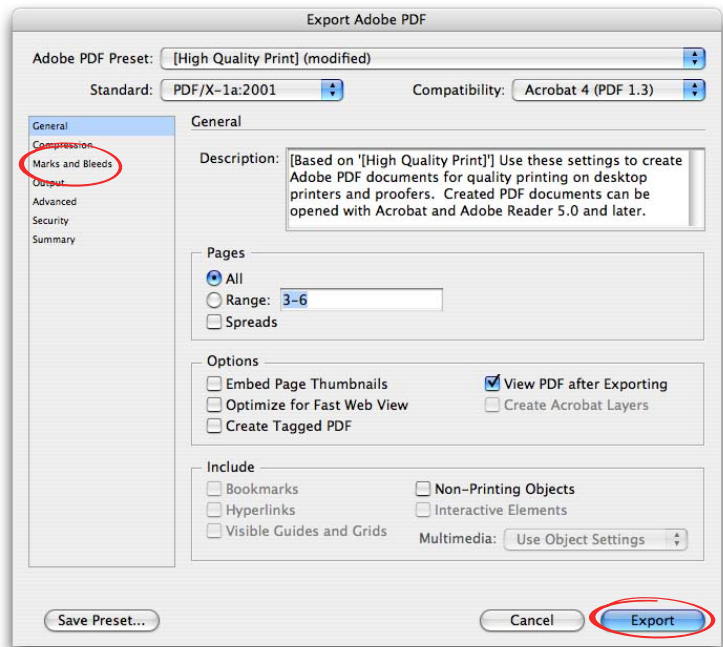
Exporting the InDesign Document

- Open up the Export menu. (File > Export)
- Save the file as a pdf**. You can select this from the drop-down menu at the bottom (see right).
- The next menu box that opens will give you some options on creating your pdf.
- On the left, select the **marks and bleeds tab** and **make sure that all the marks are off** (with the exception being crop marks if you have set up a bleed).
- Click **Export** to create the pdf.



Troubleshooting

- Open up the Export menu. (File > Export)
- Save the file as a pdf. You can select this from the drop-down menu at the bottom (see right).



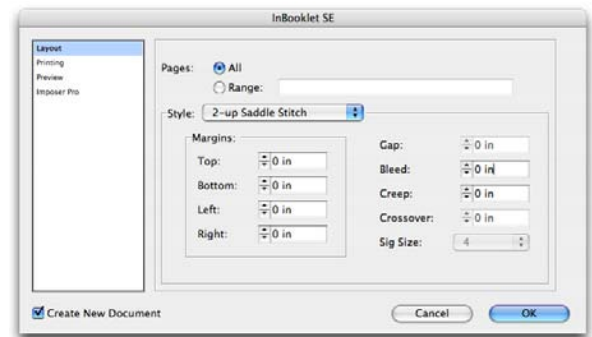
Using InBooklet SE to Set Up Spreads

(Applicable if using InDesign CS2)

Step 1

Open up the InDesign document you want to create a pdf from.
(File > Open)

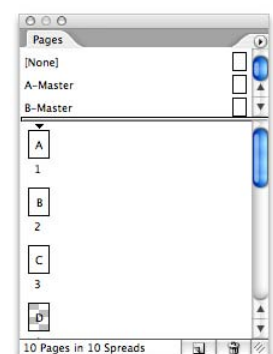
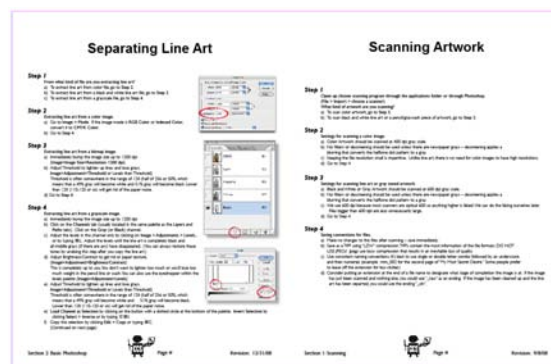
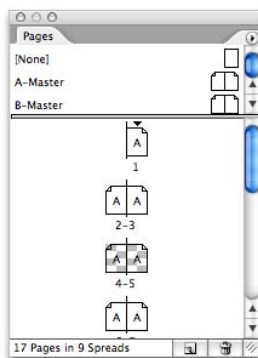
The way the InDesign file is now, the pages are set up consecutively. It's a great way to organize your information and lay out your book. However, this is not an appropriate form for printing. Using InBooklet SE will change your document into a spread format that is excellent for printing.



Step 2

Navigating and setting up your file in InBooklet SE.

- Open up the InBooklet SE menu. (File > InBooklet SE)
- Reduce all the margins to 0. (The thinking is that you have already set your margins when you created the document, so you don't need to set margins that will ultimately augment your existing margins.)
- Click the **Create New Document** check box.
- Set the Bleed to 0. (The Bleed must be less than the margins set in this menu.)
- Set the type of document you are trying to create from the **Style Drop-Down** menu. (2-Up Saddle Stitch is for documents that you intend to saddle stitch, and 2-Up Perfect Bound is for documents that you intend to perfect bind.)
- On the left, select the **Printing** tab and make sure that all the check boxes for all the **Printers Marks** are turned off.
- Click the **Print** button. This will not print the file, but will instead create a new InDesign document laid out in spreads. Be sure to save this file separately from your base file immediately.
- You can now export your InDesign document to a pdf in spreads but referring to the **Creating a PDF from an InDesign Document** instructions and starting at **Step 2**.



(From left to right:-the page view of an InDesign document; two pages joined into a spread by InBooklet SE; the new page view of the same InDesign document, which now expresses spreads instead of individual pages. Remember, the most jarring thing about seeing your document in spreads is that pages you didn't intend to be adjacent to one another will be on the same paper. DO NOT WORRY, when the book is bound, all the pages will be in the right place.)

Using Print Booklet to Set Up Spreads

(Applicable if using InDesign CS3 or CS4)

Step 1

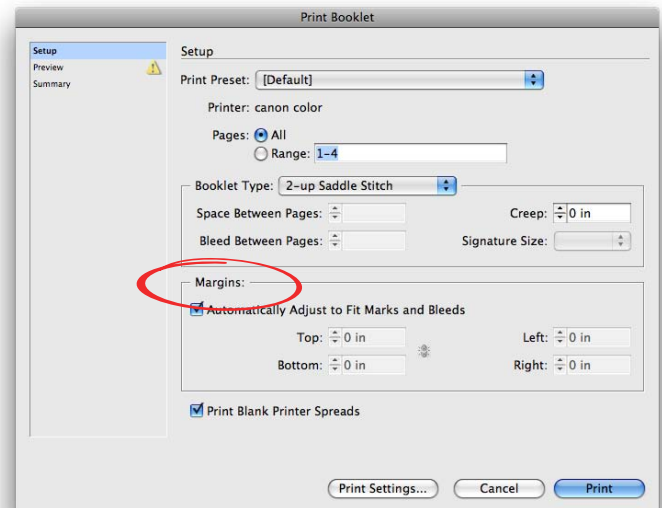
Open up the InDesign document you want to create a pdf from. (File > Open)

The way the InDesign file is now, the pages are set up consecutively. It's a great way to organize your information and lay out your book. However, this is not an appropriate form for printing. Using Print Booklet will change your document into a spread format that is excellent for printing. Unlike InBooklet SE, however, we will not be creating a whole new InDesign file, but will instead be creating a PDF in spreads form.

Step 2

Navigating and setting up your file in Print Booklet.

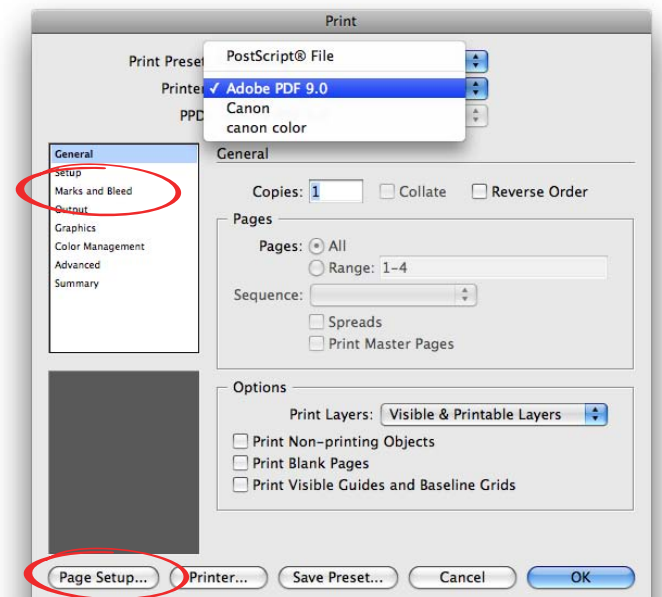
- Open up the **Print Booklet** menu. (File > Print Booklet)
- Reduce all the margins to 0. (The thinking is that you have already set your margins when you created the document, so you don't need to set margins that will ultimately augment your existing margins.)
- Make sure the Bleed is set to 0. (The Bleed must be less than the margins set in this menu.)
- Set the type of document you are trying to create from the **Booklet Type Drop-Down** menu. (**2-Up Saddle Stitch** is for documents that you intend to saddle stitch, and **2-Up Perfect Bound** is for documents that you intend to perfect bind.)



Step 3

Setting up the printer so that the file prints as a PDF.

- Click the **Print Settings** button at the bottom left of the **Print Booklet** window.
- In the new window, click the **Printer** drop-down menu near the top and select **Adobe PDF 9.0** (or 7.0, or whatever version of **Adobe Acrobat** you have installed).
- From this menu you can also access the **Page Setup** menu.
- From the left, select **Marks and Bleeds** and make sure that all the check boxes for all the **Printers Marks** are turned off.
- When you are finished, click the **OK** button to return to the **Print Booklet** window.
- On the left, select the **Preview** tab and make sure that all your pages appear, and will fit on the paper. Again, remember that when using spread, pages that appear next to each other numerically may not appear next to each other in spreads. This is normal.
- Click the **Print** button. This will not print the file, but will instead create a new **PDF file** laid out in spreads. The file will either be saved to the **Desktop** or the **Documents** folder by default.



Printing in the CCS Lab: The Golden Rule

The Golden Rule is that when printing images to the black and white copier, unless they are from the web, always convert the image to a PDF file.

If you are using Photoshop:

- a) Make sure to save your original document separately in whatever format you like for archival reasons.
- b) Flatten your document to reduce file size.
- c) If you are using Photoshop, simply save your image as a pdf by going to **File > Save As** and choosing **Photoshop PDF** from the drop-down menu.
- d) **Print pdf from Acrobat or Preview.**

If you are using Illustrator:

- a) Save your Illustrator File.
- b) Open up InDesign, and start a new document (see instruction in previous section) at the size that you want your Illustrator file printed at.
- c) Place your Illustrator file into the InDesign document by going to to **File > Place**.
- d) Resize your Illustrator file to fit the document.
- e) Export the InDesign file to a pdf. (see instruction in previous section)
- f) **Print pdf from Acrobat or Preview.**

If you are using InDesign:

- a) See the instruction in the previous section for exporting single sheets or spreads to pdf.
- b) **Print pdf from Acrobat or Preview.**

Why is there such a desperate need to print images in pdf form?

PDF files are the best suited for communicating the information about the document to the printer. First, a pdf file uses various **compressors** that greatly reduces file size. Secondly, pdf files contains **postscript-like language**. **Postscript** is the "language" that computers use to tell printers where to lay the ink down on the page, i.e. print. Since pdf files already contain postscript language, the computer and printers have to do a lot less time communicating to the printer. They can talk the talk!

Troubleshooting

q) **Why is it not a problem to send photoshop (.psd) files, or tiffs, to the copier?**

- a) The color copier is much more powerful, so it can handle larger, more complicated files faster.

q) **Why are web images not a problem, but my comic pages are?**

- a) Web resolution is 72 dpi, while most cartoonists work their pages around 600-1200 dpi. It's a huge difference for the printer to handle.

q) **Why is it that some computers won't send documents to the copier from Acrobat at all, but they will from Preview? Or vice versa, sending files from Acrobat, and not at all from preview?**

- a) Files are sent to the copier via a wireless airport. Wireless technology is still, unfortunately, imperfect, so you'll find some programs on some computers won't agree with airport settings, wireless cards, etc. The best we can do is simply try the other program. There is no loss in quality for using one program, rather than another, to send documents to the copier.



Technical Specifications of the B/W Copier Canon Imagerunner 5055

Main Unit

Copy/Print Speed:	75/65 ppm (Letter)
Actual Resolution:	600 dpi x 600 dpi
Interpolated Resolution:	1200 dpi x 600 dpi (Copy) 1200 dpi x 1200 dpi (Print)
Halftone:	256 Gradations of Gray
Paper Sources	Standard: Dual 1,500-sheet Paper Drawers (3000 Sheets) Dual 550-sheet Paper Cassettes (1,100 Sheets) Stack Bypass (50 Sheets)
Paper Weights:	11 lb. to 170 lb. Bond (All Sources)

Finisher Unit ADI

Number of Trays:	3 Tray
Tray Capacity	
Non-collate, Collate, Group Mode:	Up to 4,000 Sheets (Letter, Statement)
Staple Mode:	1,300 Sheets/100 Sets (Letter) 650 Sheets/50 Sets (11" x 17", Legal, Letter, Letter-R)
Staple Position/Size:	Corner Stapling (11" x 17", Legal, Letter, Letter-R)
Max. Stapling Capacity	(Up to 20 lb. Bond): 50 Sheets (Letter) (Up to 20 lb. Bond): 30 Sheets (11" x 17", Legal, Letter, Letter-R)

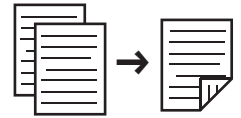


Copying Double Sided on the B/W Copier

Step 1

Determine the kind of copies you need to make.

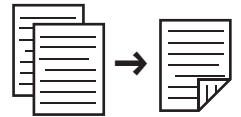
- Do you need to scale (shrink or enlarge) your originals to fit on your pages? If no, go to **Step 1-b**. If yes, go to **Step 2**.
- Are your originals different sizes from each other, or are some single-sided while others are double-sided? If no, go to **Step 1-c**. If yes, go to **Step 2**.
- Are your originals in a bound book? If no, go to **Step 1-d**. If yes, go to **Step 5**.
- If all the originals are the same size...
 - Are the originals single-sided? If so, go to **Step 3**.
 - Are the originals double-sided? If so, go to **Step 4**.



Step 2

Making double-sided copies from variously-sized originals.

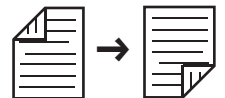
- After you insert your copy card, select the **Two-sided** menu.
- In the Two-sided menu, select **1►2-Sided**, even if some of your originals are double-sided.
- If your originals must be scaled, select **Copy Ratio** and enter the degree to which you want to enlarge or shrink your copies.
- Place your first original face-down on the glass and press **Start**. A dialogue box will appear on the monitor, tracking the number of sheets to be made times the number of copies. (You can change the number of copies at any time by typing the number desired on the numeric keypad.)
- Place each subsequent page face-down on the glass and press **Start** for each one until all originals have been scanned. If you have double-sided originals, be sure to flip each one over and scan the reverse side before proceeding to the next sheet.
- In the dialogue box on the screen, touch **Done**.



Step 3

Making double-sided copies from single-sided originals.

- After you insert your copy card, select the **Two-sided** menu.
- In the Two-sided menu, select **1►2-Sided**.
- Place your originals in sequential order face-up in the **Document Feeder Tray** on top of the copier.
- Enter the number of copies you wish to make using the numeric keypad.
- Press **Start**.



Step 4

Making double-sided copies from double-sided originals.

- After you insert your copy card, select the **Two-sided** menu.
- In the Two-sided menu, select **2►2-Sided**.
- Place your originals in sequential order face-up in the **Document Feeder Tray** on top of the copier.
- Enter the number of copies you wish to make using the numeric keypad.
- Press **Start**.



Step 5

Making double-sided copies from a bound book.

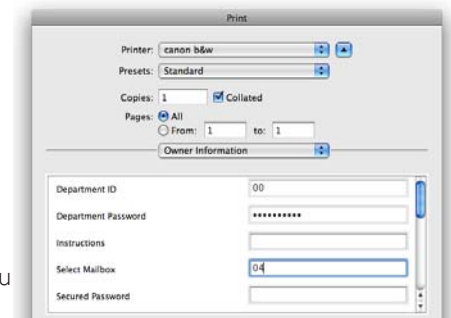
- After you insert your copy card, select the **Two-sided** menu.
- In the Two-sided menu, select **Book►2-Sided** and touch **Next**.
- If the left-hand page is the first in the set you will copy, touch **Left/Right 2-Sided**. If the right-hand page is the first, touch **Front/Back 2-Sided**.
- Place the book face-down on the glass, with the top of the pages away from you and press **Start**.
- When the machine queries you about the size of the original, choose the size closest to the dimensions of the entire open book on the glass, not just a page of the book. Make sure the size you choose is the same size as the open book or larger, to ensure the entire page is copied.
- Press **Start** again. A dialogue box will appear on the monitor, tracking the number of sheets to be made times the number of copies. (You can change the number of copies at any time by typing the number desired on the numeric keypad.)
- Turn the page of your book and press **Start** again. Repeat until all the pages you want to copy have been scanned.
- In the dialogue box on the screen, touch **Done**.

Printing Double Sided on the B/W Copier

Step 1

Enter ID and Mail Box Information.

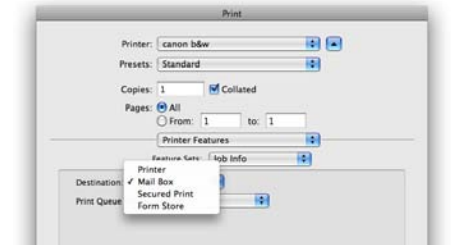
- From the **Settings** pull-down menu, select **Fiery Job Notes** (on PowerPC Macs) or **Owner Information** (on Intel Macs).
- Fill in **Department ID** and **Department Password** with your ID number.
Fill in **Select Mailbox** with a number between 00 and 99. Remember this number!
(Scroll down) Fill in **File Name (for Mail Box)** with a name that you will recognize.



Step 2

Send Your File to a Mail Box.

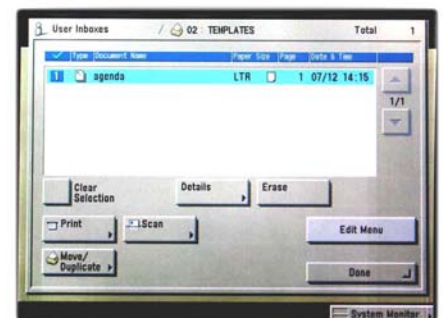
- From the **Settings** pull-down menu, select **Printer Features**.
- From the **Feature Sets** pull-down menu, select **Job Info**.
- From the **Destination** pull-down menu, select **Mail Box**.
- Click **Print**.



Step 3

Retrieve the document on the B/W Copier

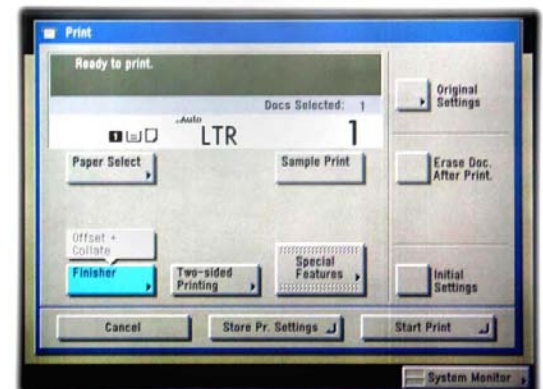
- Insert your copy card.
- Choose **Mail Box** from the options at the top of the screen.
- Select the Mail Box you chose earlier.
- Select the document you sent to the printer.
- Touch **Print**.



Step 4

Print the document.

- In the dialogue box now open, select **Change Print Settings**.
- Touch **Two-sided Printing**.
- Under two-sided printing, you may choose either **Book Type** (for portrait-oriented pages) or **Calendar Type** (for landscape-oriented pages).
- Use the numeric keypad to enter the number of copies you want to make. If you are printing a large number of copies, touch **Sample Print** to print out a test before you begin the job.
- Touch **Start Print**.



Technical Specifications of the Color Copier Canon Imagerunner c3220

Main Unit

Acceptable Originals:	Sheets, Books, 3-Dimensional Objects (Up to 4.4 lb./2kg)
Max. Original Size:	11" x 17" (Ledger)
Copy/Print Sizes: Cassette-Feeding:	Executive, Statement-R, Letter-R, Letter; Legal, 11" x 17", 12" x 18"
Optional Paper Deck: Stack Bypass:	Letter 3-5/16" x 5-7/8" to 12-5/8" x 18" (100mm x 148mm to 320mm x 457mm)
Copy/Print Speeds (Letter):	3 ppm (Color and B/W)
Resolution Scanning: Printing:	600 x 600 dpi Up to 2400-dpi Equivalent x 600 dpi
Halftone:	256 Gradations
Paper-Feeding Standard:	Dual 550-Sheet Paper Cassettes (1,100 Sheets; 20 lb. Bond/80gsm) Stack Bypass (100 Sheets; 20 lb. Bond)
Acceptable Paper Weights Cassettes:	1 lb. Bond to 110 lb. Index (64gsm - 209gsm) and Transparency
Stack Bypass:	1 lb. Bond to 140 lb. Index (64gsm - 253gsm) and Transparency
Multiple Copies:	1 to 999
File Format:	B/W: TIFF, MTIFF, PDF
Color:	JPEG, PDF, PDF (Compact)
Sending Sizes:	Up to 11" x 17"



Finisher M1 Unit

Number of Trays:	One
Tray Capacity No Collating, Collate, and Group Mode:	1,000 Sheets (Statement-R, Letter-R, Letter) 500 Sheets/30 Sets (Legal, 11" x 17", 12" x 18")
Staple Mode (Corner):	3 Sets (Letter-R, Letter, Legal, 11" x 17")
Max. Stapling Capacity:	3 Sheets (Letter-R, Letter) 2 Sheets (Legal) 1 Sheets (11" x 17")
Acceptable Paper Weights:	1 lb. Bond to 140 lb. Index

Cassette Feeder X1 Unit

Paper Capacity:	Dual 550-Sheet Paper Cassettes (1,100 Sheets/20 lb. Bond)
Acceptable Paper Sizes:	Executive, Statement-R, Letter-R, Letter, Legal, 11" x 17", 12" x 18"
Acceptable Paper Weights:	1 lb. Bond to 110 lb. Index

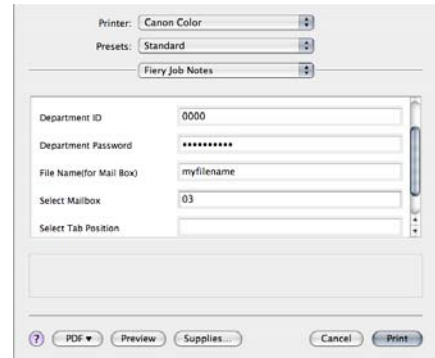


Copying Double Sided on the Color Copier

Step 1

Enter ID and Mail Box Information.

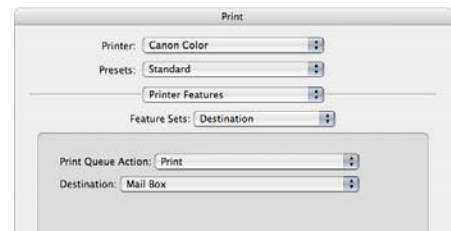
- From the **Settings** pull-down menu, select **Fiery Job Notes** (on PowerPC Macs) or **Owner Information** (on Intel Macs).
- Fill in **Department ID** and **Department Password** with your copy code. Fill in **File Name (for Mail Box)** with a name that you will recognize. Fill in **Select Mailbox** with a number between 00 and 99. Remember this number! →



Step 2

Send Your File to a Mail Box.

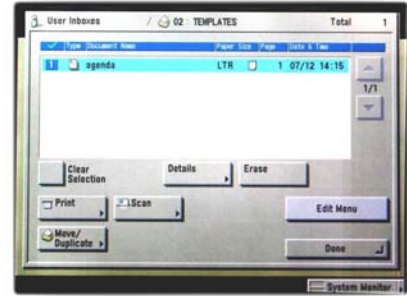
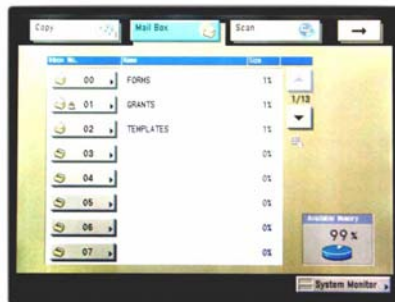
- From the **Settings** pull-down menu, select **Printer Features**.
- From the **Feature Sets** pull-down menu, select **Destination**.
- From the **Destination** pull-down menu, select **Mail Box**.
- Click **Print**. →



Step 3

Retrieve the document on the Canon Color imageRunner.

- Insert your copy card..
- Choose **Mail Box** from the options at the top of the screen.
- Select the Mail Box you typed in earlier.
- Select the document name you typed in earlier.
- Touch **Print**.

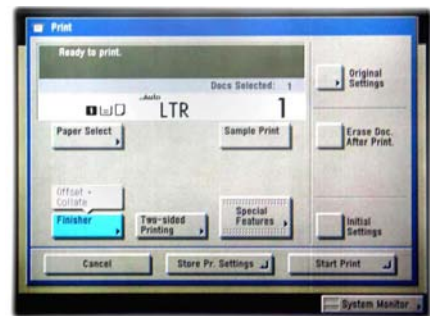


Step 4

Print the document.

- In the dialogue box now open, select **Change Print Settings**.
- Touch **Two-sided Printing**.
- Under two-sided printing, you may choose either **Book Type** (for landscape-oriented pages—select this if you are printing a book that you will saddle stitch) or **Calendar Type** (for portrait-oriented pages). **NOTE:** This is the opposite of the B&W copier!
- Use the numeric keypad to enter the number of copies you want to make. If you are printing a large number of copies, touch **Sample Print** to print out a test before you begin the job.
- Touch **Start Print**.

(This menu screen is from the B/W copier and varies slightly, but is mostly similar. Still press the print button.)



Printing and Copying Through the Stack Bypass

These instructions are conbruent for both the Canon B/W and Color Copiers.

Step 1

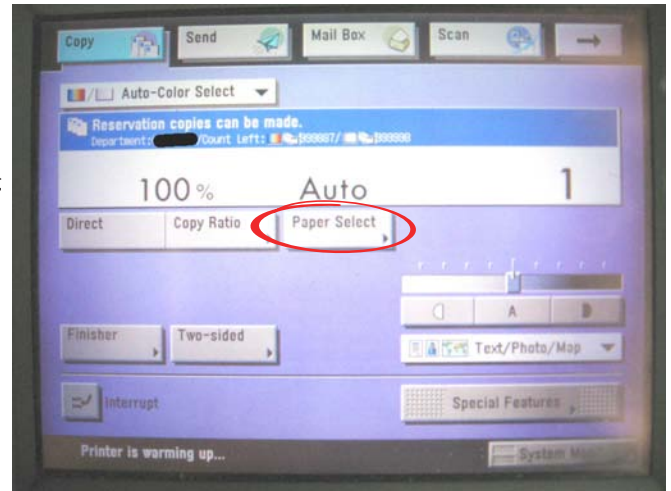
Preparing paper in the stack bypass.

- Place desired paper in the bypass feed tray.
- On the copier control screen, press the **System Monitor** button.
- Follow the on-screen instructions for defining your paper.

Step 2

Copying onto paper through the stack bypass.

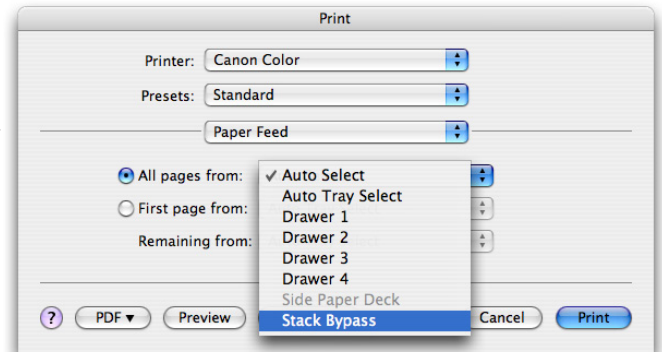
- Insert copy card.
- Place art / text / photo that you want to copy on the copier bed.
- Press the button labelled **Paper Select**.
- Press the button that corresponds to your paper in the stack bypass.
- Make any changes to the copier settings that you would normally make like size adjustments, contrast, etc.
- Click the **Start** button on the copier.



Step 3

Printing onto paper through the stack bypass.

- Click on the **File** tab at the top and then **Print**.
- Click on the third drop down menu box, and select **Paper Feed**.
- Find the drop down menu for **All Pages From:** and select **Stack Bypass**.
- Enter your **Department ID and Password** in **Owner Information**.
- Click **Print**.



Troubleshooting:

Q: Am I charged differently for printing through the stack bypass?

A: No, just remember that any copy or print made on the Color Copier will be charged 50 cents, even if it is just black.

Q: What sort of paper weight limitations are there for the stack bypass?

A: The **B/W Copier** can handle up to **110 lb paper**, and the **Color Copier** can handle up to **140 lb paper**



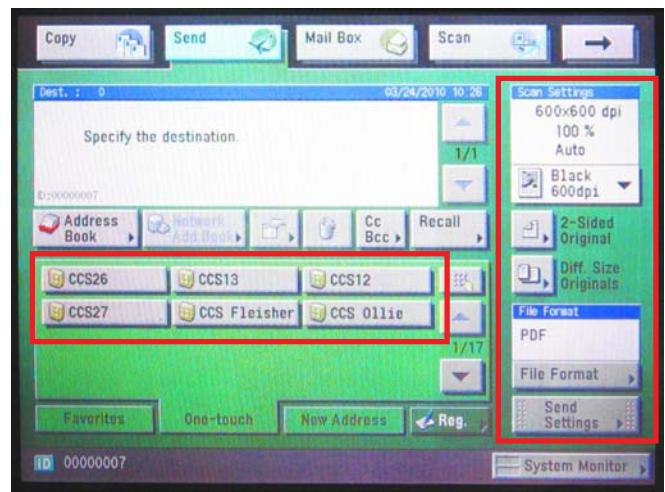
Use the Canon Copiers to scan documents to the Production Lab Desktops

These instructions are congruent for both the Canon B/W and Color Copiers.

Step 1

Open up the Send menu on the Copier

- Insert your copy card.
- Choose **Send** from the options at the top of the screen.
- Choose from one of the **six destinations (the four Production Lab iMacs and two administrative iMacs)**
- From the **Scan Settings** drop-down menu on the right, select your **resolution (on the Color Copier, make sure to select color, grayscale or black)**.
- If you are feeding a multi-page, double-sided document through the top feeder, press the **2-Sided Original** button on the right.(up to 24 lb paper can go through the top feeder).
- From the **File Format** drop-down menu on the lower-right, select your **file type (including Compact PDF)**
- Place your original on the glass on into the top feeder (up to 24 lb paper can go through the top feeder).
- Press the **Start Button** on the copier.



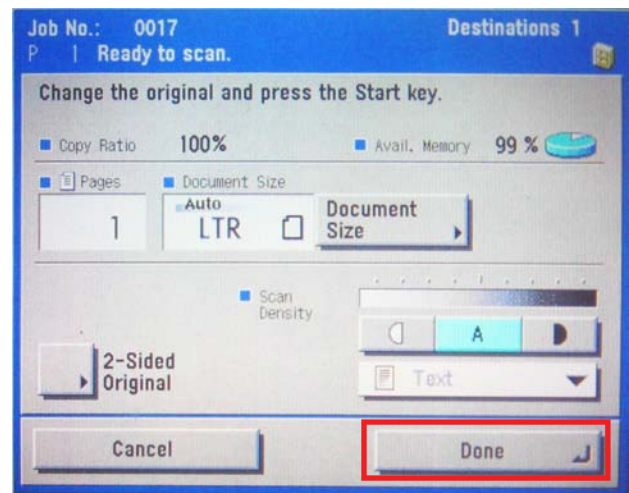
Step 2

Scan the document.

- After the copier has scanned your page, you may press the **Start Button** again to scan an additional page.
- Continue until all the pages of your document are scanned.

IMPORTANT: Scanning multiple pages at a time will package them all as one PDF file.

- Press the **Done** button on the screen to send your document.
- Retrieve your file from the appropriate destination. Your file will be located in a folder on the desktop of the designated computer named **Canon Scans**



TROUBLE SHOOTING

Q. My file doesn't show up on the desktop.

A. Make sure that the folder **Canon Scans** is on the desktop. If the folder has been changed or moved, the file won't send correctly. Recreating the folder and naming it **Canon Scans** (case sensitive) should remedy the problem.

Q. Will I be charged to scan documents?

A. No. This will not deduct from your copy account balance.



Screen Printing

Step 1

Create a film positive.

- Print or photocopy your image onto transparency paper or vellum. Your image must be black and white.
- Linework and areas of color are most suitable for screen-printing. Avoid overly complex imagery and fine lines.
- While printing halftones is not impossible, it is challenging. Use a low dot count.



Step 2

Preparing the screen.

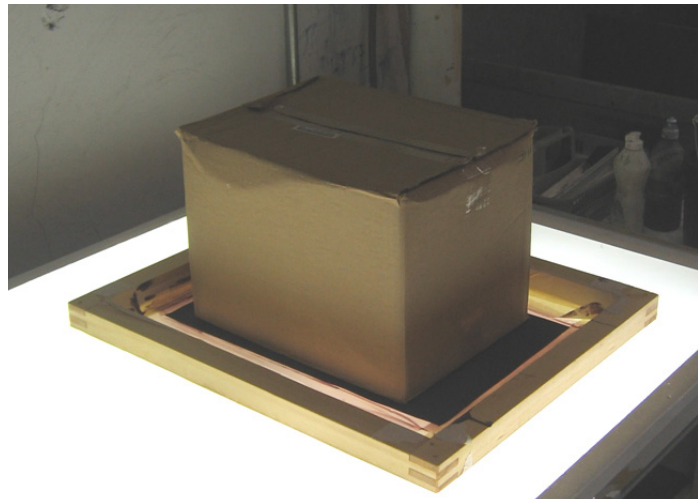
- Choose an appropriate mesh count. **Most designs will print well with a medium-high mesh count of 156-196.** For highly detailed designs with fine lines or half tones, **use a high mesh count (230-305).**
- Tape-off edges and corners of the screen, where the mesh meets the frame.
- Coat the screen with photo emulsion using a scoop coater. Pull the scoop coater up the screen fabric in quick strokes. Create a smooth, consistent surface on both sides. **Clean up any drips or blobs.** You do not need to work in darkness during this step, but always avoid excessive exposure of the photo emulsion to light.
- Your last coat of emulsion should be applied to the inside of the screen, pushing a thicker layer of emulsion to the print side.
- Immediately after coating your screen place it in a dark area. Clean photo emulsion from the scoop coater and all surfaces before it can dry.
- Let screen dry in a dark area. Use a fan for speed drying (**about 20 minutes.**)



Step 3

Exposing the screen.

- The screen must be completely dry before you can make an exposure.
- Tape the film positive to the print side (flat side) of the screen. At this point the image should be **wrong-reading**. When you flip the screen over to print, the image will be **right-reading**.
- Place the screen on the light table, flat side down. Place a dark piece of paper inside your screen, covering the image area. This will keep the light from reflecting back through the screen.
- Using books, wooden blocks, etc, to completely cover the image area of the screen. This weight will cause the film to lie flush against the surface of the screen. **Make sure the weight is adequate and consistent over the image area.**
- Turn the light table to high, and expose your screen for the appropriate amount of time. **19-24 minutes is usually adequate. Ask the lab tech for the best exposure time.**



Step 4

Spraying the screen.

- a) After the exposure is complete, remove the film.
- b) Spray both sides of the screen with cold water. **Use low pressure at first, increase pressure as needed.** The image will begin to appear.
- c) Spray the screen till the stencil is completely clear. Hold the screen to a light source - if you can see light shining clearly through the stencil, then the stencil is clear of emulsion.
- d) **Let the screen dry completely before printing.**
- e) Use Block-Out, exposed emulsion or tape to block pinholes or undesired open areas.



Step 5

Printing one color.

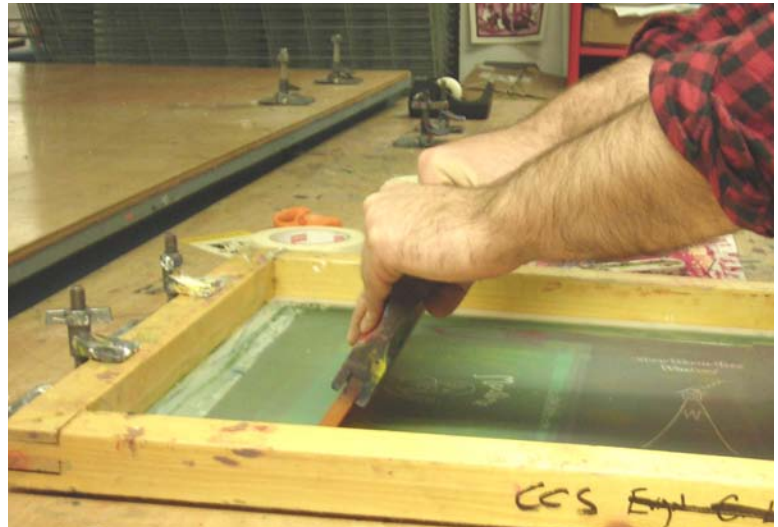
- a) Avoid wasting ink by only mixing the quantity you plan to use. Mix your ink to the desired color. Test colors on your paper. Keep in mind that ink will dry darker than it appears.
- b) **Print spot color first, linework last.** Place your screen in the hinge clamps and screw them in tight.
- c) Register your screen to the paper. Use cardstock and masking tape to make registration tabs on your printing surface.
- d) Place your paper against the registration tabs. **Try to be accurate and consistent.**
- e) Put a well of ink at the **furthest end** of the screen.
- f) **Flood Pass:** using a light stroke, completely cover the stencil in a layer of ink. **Use a light touch** – you are not pushing the ink through, just loading the screen.
- g) **Sharp Pass:** Make a sharp and quick pull with pressure to push the ink through the screen. Pull the squeegee towards yourself in one stroke. All the ink should be cleared from the stencil. If it's not, make a second pass. Too many passes will result in loss of fine detail.
- h) Lift the screen. The paper may stick to underside. Pull it off gently in one direction.
- i) As needed, clean the underside of your screen by gently rubbing it with a **damp cloth, followed by a dry cloth.** You can also clear excess ink on the underside of your screen by doing a number of test prints.
- j) **Work at a steady pace: water-based ink will dry in the screen.** Flooding the screen between prints will slow the drying process.
- k) After printing, place excess ink in a container. **Seal and store it for later use.**



Step 6

Printing multiple colors.

- a) After printing your first color, wait till your prints are **completely dry** to print a second color.
- b) Register your prints to your new screen. Use cardstock and masking tape to make registration tabs.
- c) Repeat Step 5, d-k.



Step 7

Washing and reclaiming the screen.

- a) Always wash your screens immediately after you finish printing.
- b) Spray the screen with cold water; gently scrub with soap and a sponge. Remove tape as needed. Finish by washing with screen degreaser.
- c) If you plan to print this image again, **allow the screen to dry**. Once dry, place it on the screen storage shelf.
- d) If you plan to print a new image with your screen, **you must reclaim it**. For the best results, follow the instructions on the reclaimer bottle. After washing your screen, while the screen is still wet, use a scrub brush or scrub sponge to apply diluted emulsion reclaimer. Scrub the reclaimer on both sides of your screen.
- f) Allow the reclaimer to soak on the screen for a short time. **Do not wait so long that the screen begins to dry**.
- g) Scrub your screen and spray it with warm water **till all the emulsion is removed**. Use high water pressure. Apply more emulsion remover if needed.
- h) Hold your screen up to a light to make sure all the emulsion has been removed. **The screen should be clear and light should pass through the fabric clearly**. Repeat step 7-g on problem areas. You may find that you are unable to remove all the emulsion from your screen. See the lab tech for assistance.

Spine Sewing

Step 1

Before you begin Spine Sewing, make sure that your document (cover and guts) is all printed out, collated, and folded. Keeping your collated document together is key.

Step 2

Marking the holes.

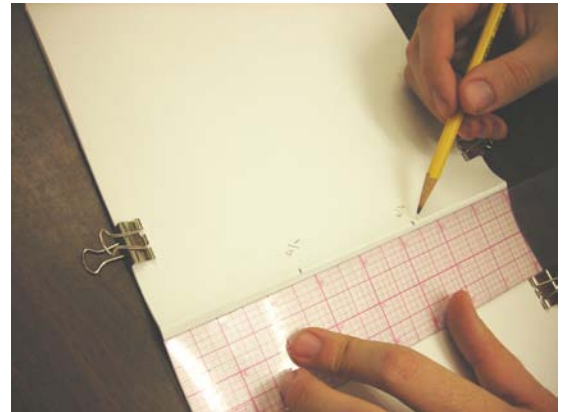
- Clip 2-4 metal binder clips to your document. to make sure the pages don't move around unwantedly.
- Using a ruler, mark out on your spine two marks; one $\frac{1}{3}$ of the way up your spine, and another $\frac{2}{3}$ of the way up
- Make sure that the "bottom" of the document is pushed all the way to the left.
- While using one hand to keep the papers steady, use the other hand to hold down the Punch button on the puncher, giving it sufficient time to punch through all of the sheets,.
- Release the button and remove the sheets, placing them to the side.
- Repeat for all remaining parts of the document.
- Recollate your document parts.



Step 3

Punching the holes your document.

- Gather up your piles of collated, punched documents.
- Using an awl (a punching tool, see right) punch the two holes at the five points you just marked. It is important that the metal clips are still on. Make sure that there is sufficient cardboard under where you are punching, so that you are not punching into the table, a venture that is harmful to the awl.
- Keep the metal clips on.



Step 4

Sewing and finishing.

- Thread about 3' worth of string (to be safe) on a binder's needle.
- Follow the diagram below to thread your document, tying it when indicated.
- When finished, cut off any extra thread and remove the binder clips.
- Repeat steps 2 and 3 for the rest of your documents.



Japanese Stab Binding

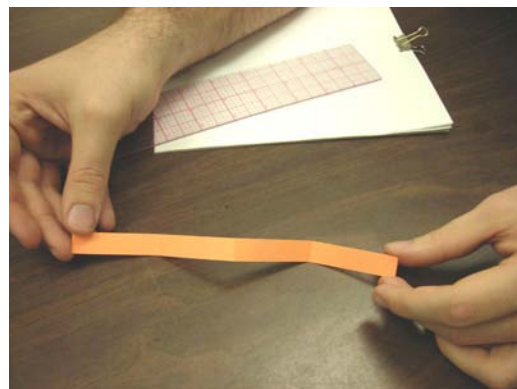
Step 1

Before you begin Japanese Stab Binding, make sure that your document (cover and guts) is all printed out and collated. Keeping your collated document together is key.

Step 2

Marking the holes. The holes are traditionally measured with a paper ruler which we will create specifically for this purpose.

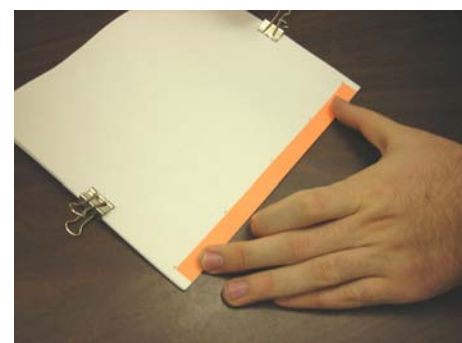
- Use a paper cutter to cut a strip of paper 1/2" wide.
- Measure the length of the book and subtract 1/2" from your measurement. This will be the length of your paper ruler.
- Take the 1/2" wide strip of paper and cut it to the appropriate length.
- Fold the paper ruler in half and then in half again. Now unfold. The paper ruler has now been divided into four areas equally by three lines.
- Take one copy of your collated document and hold it together with two metal binder clips.
- Hold your paper ruler centered on the left-most side of the front of your document. The ruler should be flush with the left-most edge.
- Use a pencil to mark points at the very corners of the paper ruler, and at the three lines (shown to right).



Step 3

Punching the holes.

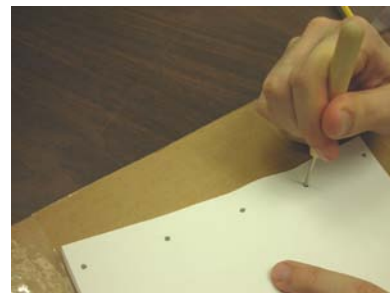
- Using an awl (a punching tool, see right) punch the five holes at the five points you just marked. It is important that the metal clips are still on. Make sure that there is sufficient cardboard under where you are punching, so that you are not punching into the table, a venture that is harmful to the awl.
- Keep the metal clips on.



Step 4

Sewing and finishing.

- Thread about 3' worth of string (to be safe) on a binder's needle.
- Follow the diagram below to thread your document, tying it when indicated.
- When finished, cut off any extra thread and remove the binder clips.
- Repeat steps 2e-3d for the rest of your documents, using the same paper ruler every time.



Perfect / Square Binding

Step 1

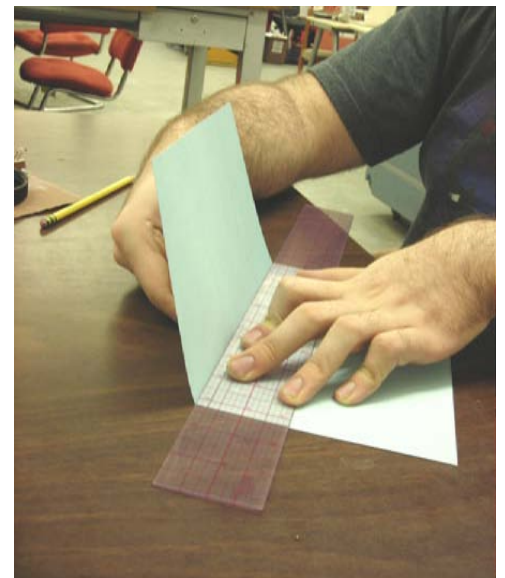
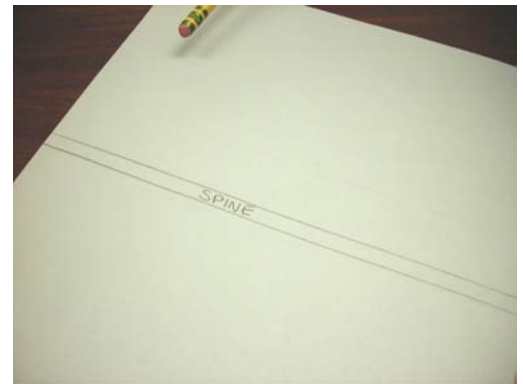
Before you begin Perfect Binding, make sure that your document is all printed out and collated. Keeping your collated document together is key.

- a) Don't worry about giving your document a face trim now. Wait for later.

Step 2

Preparing your cover.

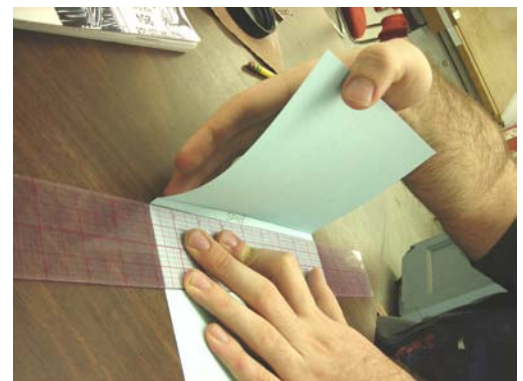
- a) Take a single, collated stack of your document and use a ruler to measure the height of your stack (not the height of the page).
- b) This measurement is how wide the spine of the book should be. (In all reality, it is a wise move to plan and design your cover beforehand. If you want to make this measurement, but you don't have your book printed, collated, and stacked yet, make your own stack of scrap paper using the exact amount of pages, and the same stock, that your final book will be.)
- c) Print out your cover.
- d) Flip your cover over, and, one at a time, rule out line that mark the beginning and end of the spine. These will be your guides for folding the cover.
- e) Place the cover with the spine guide facing towards you. Take a flat ruler (no pennies on the bottom or anything) and hold it along the rightmost spine guide.
- f) Holding the ruler very firmly in place, use your other hand to bend the cover over the ruler. Once a sufficient crease has been made, you may remove the ruler and strengthen the fold with a bone folder, spoon, etc. (see below)
- g) Now hold the ruler on the other spine guide while not covering the first fold. This is important because we don't want to ruin the integrity of that nice new fold we made.
- h) Make the second fold exactly as you did the first.
- i) Repeat for all of the covers and set them aside.



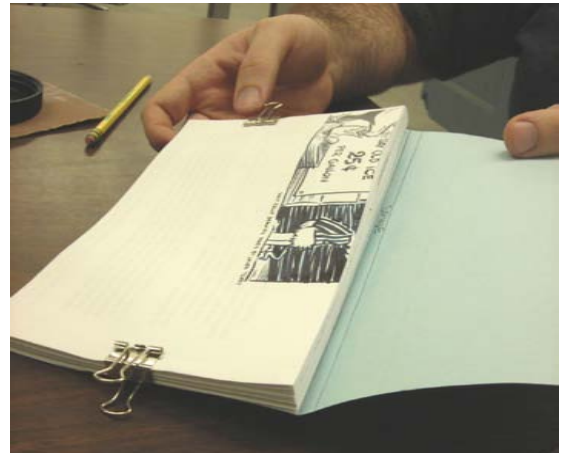
Step 3

Settings the pages in the cover and applying the glue. (See next page for images)

- a) Take a collated stack of pages and get the pile as straight and neat as you can.
- b) Place the pages into the folded cover and use metal binding clips to clip the pages to the back cover, making extra sure that pages are as even and straight as they can be, showing a nice, clean edge.
- c) Use a piece of sandpaper (150-200 grit) to rough up the stack of pages that will come into contact with the spine. This will help the glue grab the pages.



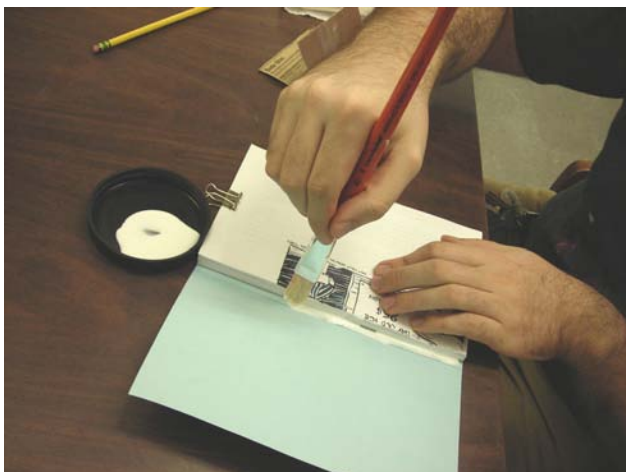
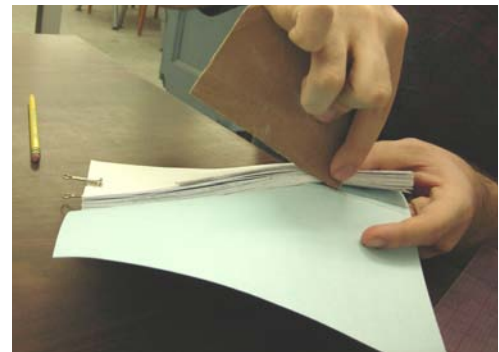
- d) Pour some bookbinding PVA glue into a small dish (a bottle cap will do)
- e) Use a junk brush to spread glue generously into the spine of the book.
- f) Put the spine onto the pages, **wiping away any extra glue** that comes out of the spine or over the side with a paper towel.



Step 4

Finishing and cutting.

- a) Very carefully remove the metal binder clips that hold the pages to the back cover:
- b) Reclip the clips on the book so that the whole book is help closed.
- c) Put the bok aside and give it ample time to dry (**20-30 minutes**).
- d) Once the book is dry, give it a face trim on three sides (not the spine, obviously) for a beautifully clean edge. This is optional of course, but even with the steadiest hand, unevenness in the pages is inevitable.



Reference URLs

Photoshop

Adobe Photoshop Help Center
Photoshop Tips and Tricks
Photoshop Help - FAQ
Photoshop 101
62 Killer Photoshop Tricks

adobe.com/support/photoshop/
graphic-design.com/Photoshop/
photoshopsupport.com/faq.html
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