

The Digital Coach™

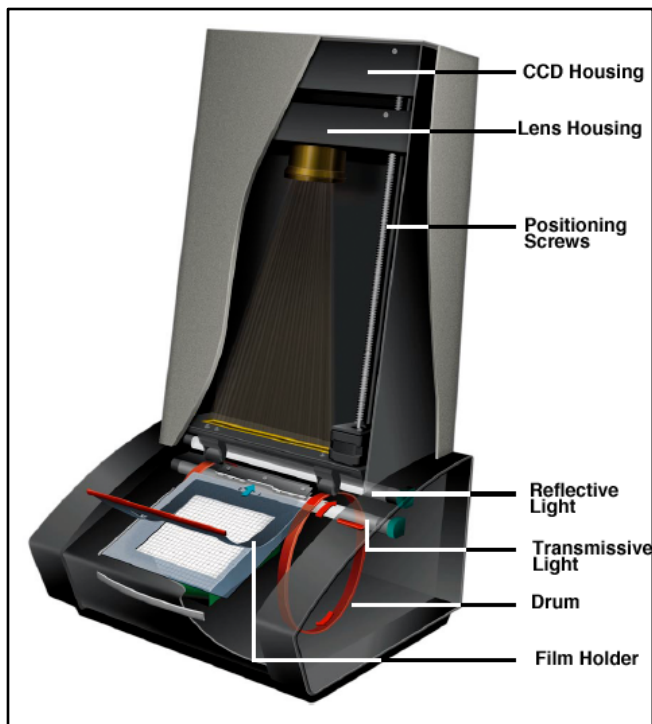
Easy-to-understand training in Digital Imaging & Color Management



FlexColor Custom Frames Tutorial

Being able to create custom frame sizes and resolutions is yet another example of the flexibility and control of the FlexColor software as used on the Imacon and Hasselblad Scanners.

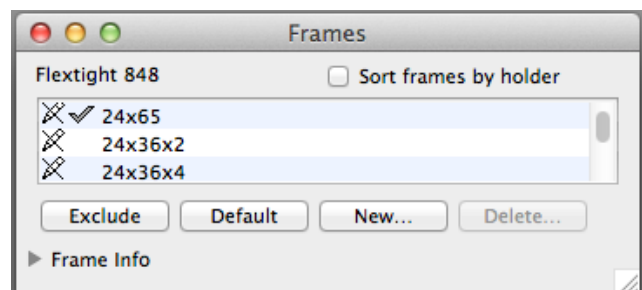
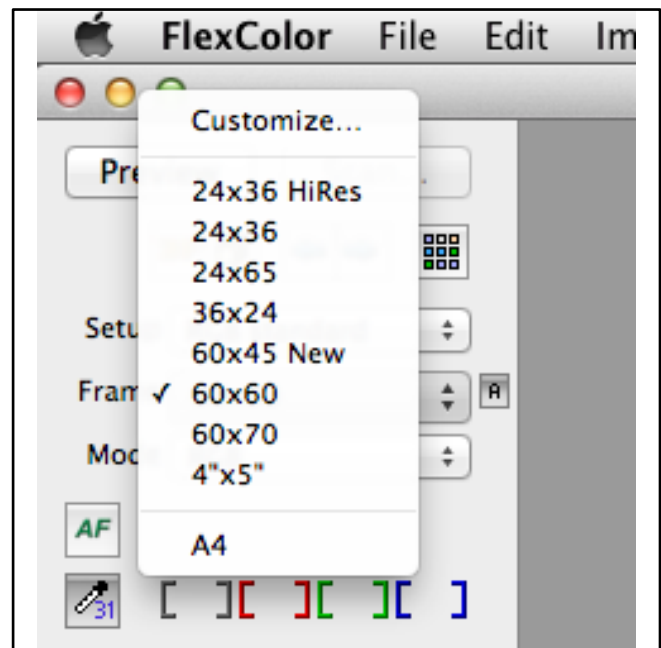
In order to understand frame sizes and resolutions we need to understand how the scanner is constructed. Here is a diagram of an Precision III scanner. It is typical of all scanners with adjustable resolutions. The CCD housing and Lens housing move up and down as determined by the frame size selected. If you look carefully you can see the light path from the transmissive lamp through the film holder and into the lens. The lens focuses the light and transmits it to the CCD array.



This is sort of like an upside down enlarger. Where the image is transmitted onto the CCD array. With 4"x5" film the lens will be closer to the CCD while 35mm the lens will be closer to the film. Since the CCD is a fixed number of pixels, the farther away the lens is, the more pixels per inch of resolution we will

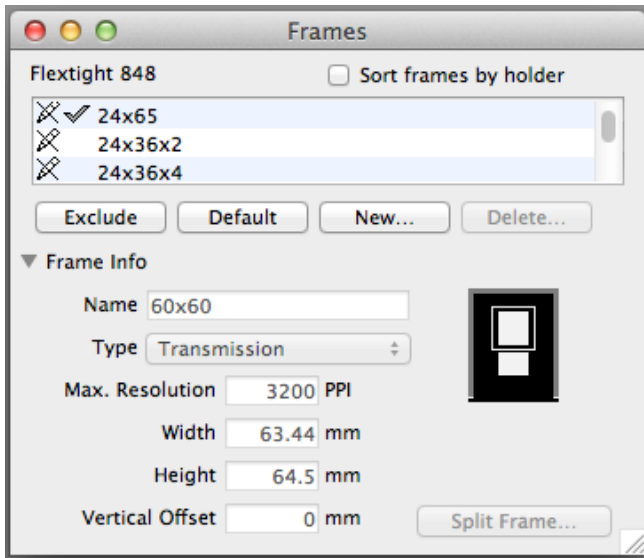
have. The CCD in the Precision Scanners has 8,000 pixels with 6,300 available for 24mm wide film. The rest do some housekeeping. The 848 scanner had a bigger CCD with 8,000 pixels available for a 24mm wide scan.

There is a direct relationship of resolution to width of the aperture opening in the film holder. Let's open the Frames Control Panel. Select Customize.



This window opens. Now let's make a new Frame Size. Click on "New" Then click on "Frame Info." Do not check the "Scan Holder" box. That will cause the scanner to scan the window and Automatically setup the custom frame.

Note: the frames with the line thru a marker symbol are factory frames and cannot be changed. The checkmark indicates ones chosen to show in the drop down menu.



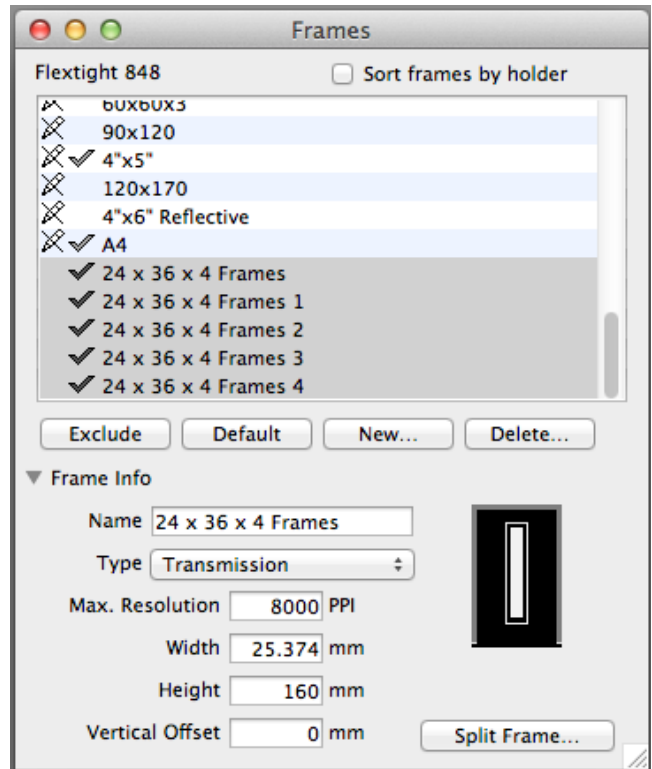
Here we can see that a 60 x 60 original is selected. That is producing a Max. Res. of 3200 and a width of 63.44mm. The height is 64.5 and the Vertical Offset is 0. Vertical offset is the starting position of the scan. It quits scanning after the height has been met.

If you change the Max. Resolution the width will change. If you change the width the resolution changes. Either one of these will change the position of the lens and or the CCD. They are all tied together.

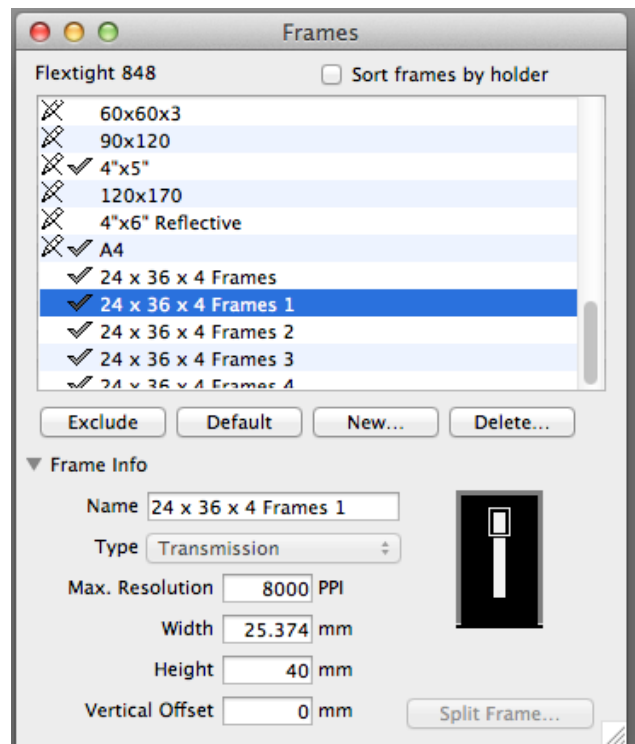
You can cheat if you want. If you know you only want image info that is in the center of an image and you need higher resolution, you can lie about your holder. For example, put a 4x5 in a 60mm holder and select the 60mm in your frame setting. The scanner will scan that part of the image that is in the window at a higher resolution. You could also put the 4 x 5 holder in the machine and select a 60mm frame or even a 36 or 24mm frame. Make sure Automatic Frame Recognition is turned off. That is under Preferences. Some users scan large format film that way and put the sections together in Photoshop.

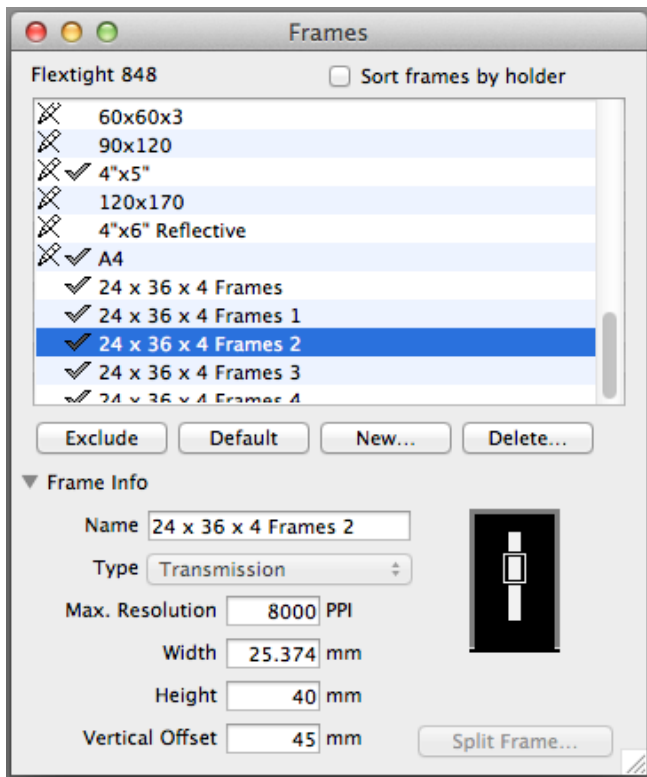
Another feature is "Split Frame." If you click on it, it allows you to select how many windows you want (called apertures). Lets say you cut your 35mm into strips with 4 frames. You could scan with a 24mm x 36 x 4 holder and crop each image and save it separately. Using Split Frame you can scan 1 image

at a time and save them separately. For example. Below is a 24 x 36 x 4 Frame with "Split Frame" selected. Note it has created 4 new frames, 1,2,3,& 4.



Below is frame 1. Note height 40mm and Vertical Offset = 0





Above is Frame 2. Note the Vertical Offset = 45mm. It will not start scanning until 45mm down from the top. Then quits scanning at 85mm. This won't scan the first frame but will scan the second. You set up frame 3 and 4 in the same manner.

Note these examples are from an 848 scanner, thus 8000 PPI. You may need to experiment with vertical offset and height to set your starting and stopping point just right.

A couple of points to note. Make sure you do not select Auto Frame or it will over ride your custom settings.

Before you create custom frames, I suggest you check the focus of your scanner first. I have written separately about how to do this. Easy to check with defocus tool in Setup.

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