

Sfumato Stitch

Exercise 2 - Dylan Design

This booklet is compilation of an on-line exercise posted to Sfumato Stitch group (<http://groups.yahoo.com/group/sfumatostitch>). I would like to thank to all who contributed with their comments and suggestions. The DYLAN photo used in this exercise is available for download in Files section at <http://groups.yahoo.com/group/sfumatostitch/files>

Lesson 1

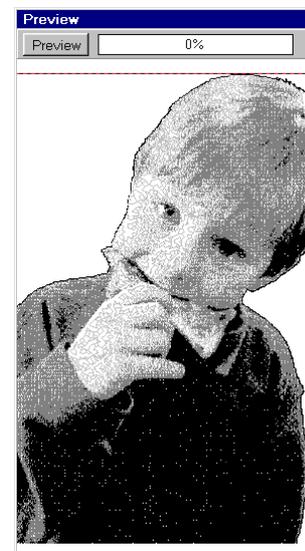
Adjusting the Image Brightness

Dylan 1a

Open the Dylan image, crop it, resize and delete background.

Dylan 1b

Hit the Preview button to see if shadows and highlights are good. You see that they are not. The shirt is too dark. The face and hair are too flat and do not look enough 3D.



Dylan 1c

Select the shirt for editing with polygonal selection tool.

Adjust the Brightness Characteristics/Gamma Correction to brighten dark tones, while black remains black. You see that more details are visible on shirt. Of course, I tried to just equalize the shirt, but there was too much black color. Therefore, I used Gamma to separate dark tones from black and brighten them somewhat.

Dylan 1d

Hit Preview. I would add little more black and highlight. Let's try to equalize the shirt colors now.

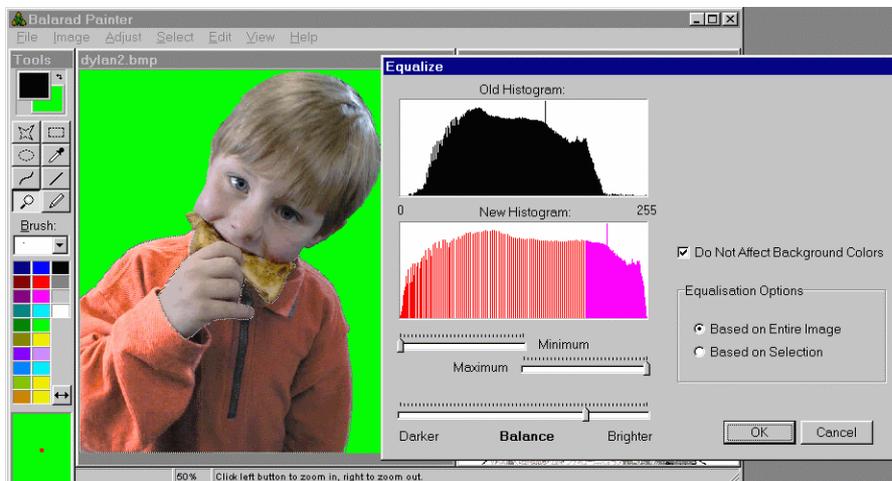


Dylan 1e

Equalize the shirt. You see that tones cover wider range. Notice the value of BALANCE control.

Dylan 1f

Hit Preview. I would say that shirt is much more 3D now.



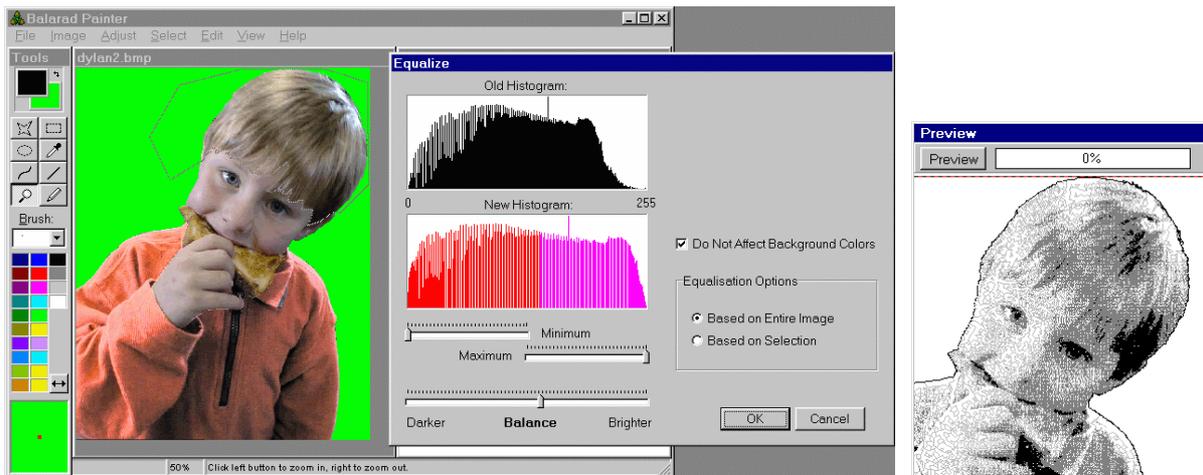
Dylan 1g

Let's adjust the hair. Select the hair area and equalize it. Notice the value of BALANCE control. You can see that I selected a lot of green (background area) with hair. It is easier to select area this way. Equalization does not change the background color.

When adjusting the brightness of area, I do always start with Equalize function. If I am not satisfied with it, I Undo it and try other tool for brightness adjustment.

Dylan 1h

Hit Preview. The layout of highlights and shadows seems to be ok now.

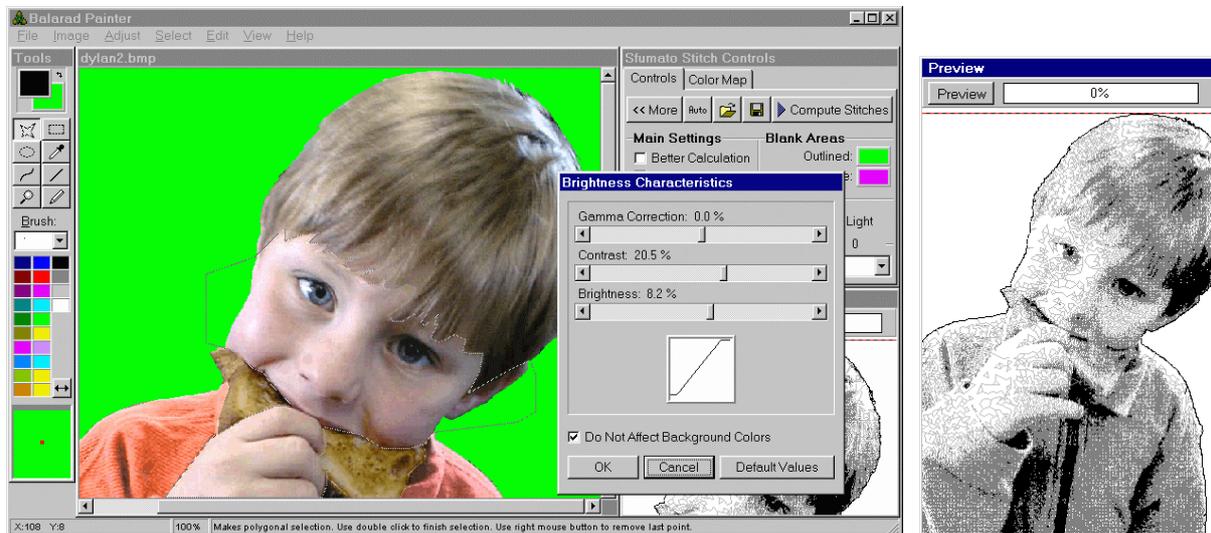


Dylan 1i

Let's adjust the face area. It is rather difficult, because I would like to have darker lines around nose and mouth. At the same time, the right eye should be not too dark. I found that the best for this adjustment is combination of CONTRAST and BRIGHTNESS controls.

Dylan 1j

Hit Preview. I would say that brightness of image is a lot better now. SAVE the Image. We will continue with it in next lesson.



Discussion to Lesson 1

Question: Why didn't we use the option "Based on Selection" when we have equalized just the face or hair? Why did we use the "Based on Entire Image" option?

Answer: "Equalize Selection Based on Entire Image" setting means that brightness values of whole image are redistributed, but only selected pixels are really changed. Thus, selected area is equalized in appropriate brightness range and not whole black-to-white range. "Equalize Selection Based on Selection" setting means that brightness values of selected pixels are redistributed in whole black-to-white range. There is no strict rule which option you should use. Try both for particular image area and then choose the one that suits you better.

Question: I would like to know if the size of the image (such as one sees it in "resample") is that of the design? How should I make several versions in several sizes of a design?

Answer: Yes, the size that is displayed when you resample image is that of finished design. In my opinion, the only really correct way is to make different sizes of Sfumato design separately (not resize one stitch file into other). You would surely make other amount of details in large design and in small design. I would adjust image for large design (brightness, background, etc.) and produce large design. Then I would resample (scale down) the adjusted image and produce small design, but I would do Color Map editing anew to achieve desired level of details.

Question: I noticed when I finished the exercise I that I caught part of Dylan's hand in editing his shirt. A small part of the hand was equalized as well as his shirt. Will there be a place to edit this or should I try again?

Answer: If the part is really small, just pick similar color and paint it with brush. It should not affect design very much. If the part is large, you should do editing anew.

Lesson 2

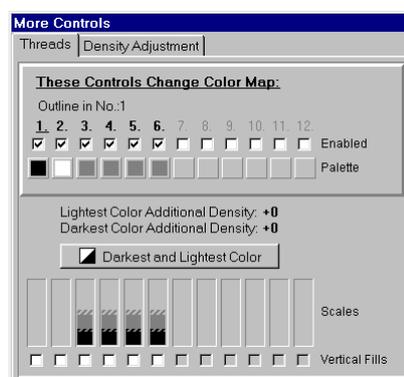
Colors

Dylan 2a

Please take a look at this picture. It is time to decide how many colors should be used for this design. I would use 1 scale (2 shades) for shirt, 1 scale for face and hand, 1 scale for cake and 1 scale for hair. This makes 4 scales together + black.

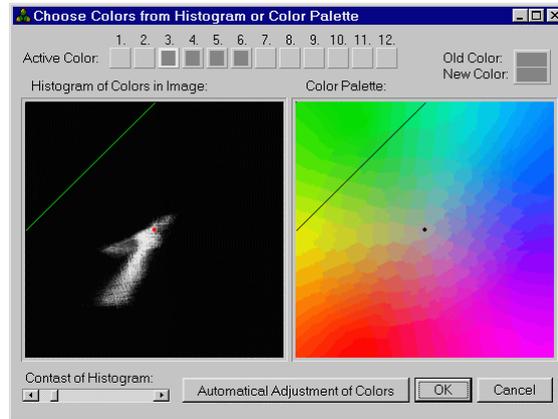
Dylan 2b

Enable 4 scales. All contain default gray colors. Click on any enabled palette color to open Histogram window for colors editing.

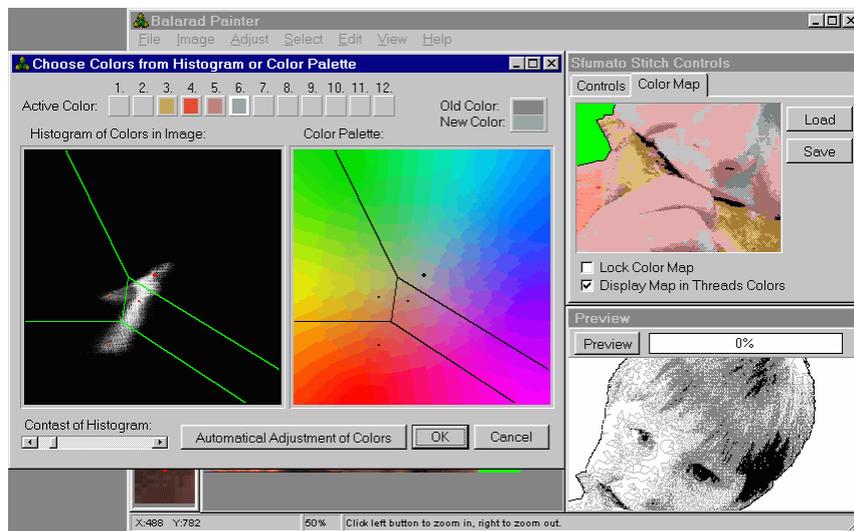


Dylan 2c

All 4 palette colors are in the middle of histogram (because they are gray). See the shape of bright cloud in histogram. We should place the four colors somehow. There are no distinct gaps in the cloud. The bright cloud is more or less compact. This means that the image colors cannot be strictly separated and whatever will be selected colors, they will mingle one into other. It doesn't matter much, however, because we will edit the color map later and place colors on their right place.

Dylan 2d

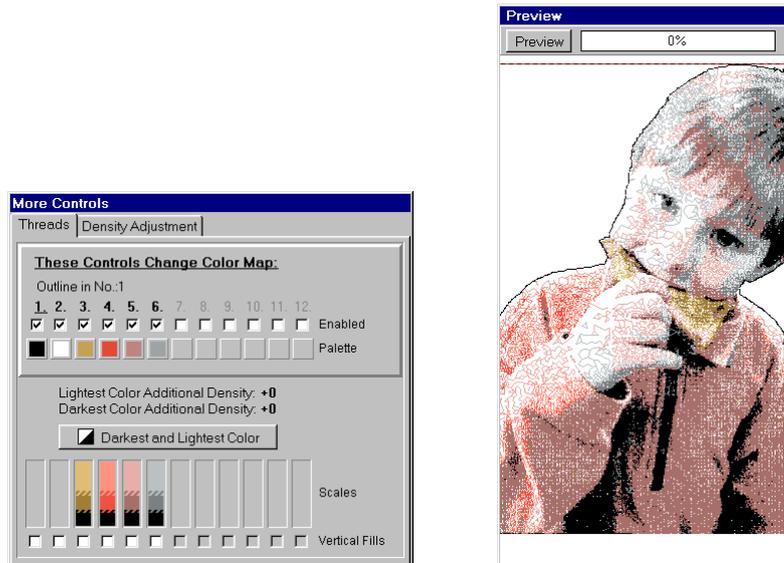
I have decided to place the first dot into yellowish area (for cake), the second into red area (for shirt), the third into pinkish area (for face) and the fourth into grayish area (for hair). See the part of Color Map visible in the top right corner. Colors are intermingled. As I have already said, we will edit them later.

Dylan 2e

Hit OK and return to More Controls window. You can see the new Scale Colors.

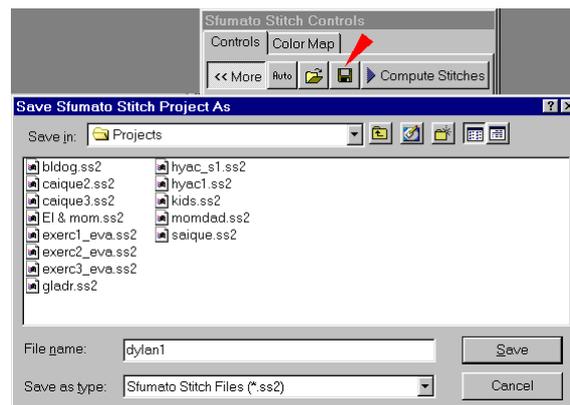
Dylan 2f

Hit Preview. You can see intermingled colors.



Dylan 2g

Save the Sfumato Project (containing colors and link to image) so that we can continue in next lesson. To save project click on disc icon in Sfumato Controls



Discussion to Lesson 2

Question: When you picked the colors to to change the color map you picked the cake first. Does it make a difference as to the order that is chosen? In my mind, I would think that the shirt (red) would have been selected first as we worked with that first, then the hair, then the face and hand.

Answer: Sometimes the colors order is important and sometimes is not, in Sfumato. Usually, the colors order is crucial when colors are intermingled. Then it makes a big difference which color is sewn on top and which underneath. In our case, the colors areas like shirt, face and cake are separate areas and will not mingle one into other. Therefore, it doesn't matter in what order the shirt, face, or cake is sewn. The other factor is that all designs (not just Sfumato designs) usually sew better if they are sewn from center out. Therefore, you may want to choose colors so that central areas will be sewn first and the outer areas later. Anyway, you can change colors order of finished design also later in Embird Editor, when you have better idea of how design really looks.

Question: Would it be possible for you to explain once again which "save" icon to use for each part of the project, and which file to "open" and "load" to continue? For instance, when you "save map to disc", is that the floppy disc icon in Sfumato Controls? Do you open the color map, edit it, and then save using the icon under "load"? This is so confusing. As far as I can tell there are at least three places to "save" - under Files - (Save

As) (in Painter), the floppy disc - (in Painter), and "Save" (located under "Load") in Painter. Also, which file is opened/loaded first to continue the project and finally complete the picture?

Answer: As you have mentioned, there are three places for saving/opening files in Painter and Sfumato:

1. Open/Save image in Painter - through MENU.
2. Load/Save color map in Sfumato - BUTTONS with labels next to color map.
3. Open/Save project file in Sfumato Controls window - BUTTONS with icons next to <<More button.

All three files (image, color map, project file) must be saved from respective place when you change them.

- If you edit image, always save it from Painter menu.
- If you change colors, thresholds or other Sfumato settings, save project file by clicking on disc icon. Project file contains all settings and paths to image and color map.
- If you want to edit color map, first save the map from Sfumato Controls window. Then open it as image in painter, edit it and save from painter as image.

What happens when you open any of these files?

- If you start Sfumato and you want to continue work from previous session, just open the project file, it will automatically launch the image and color map.
- When you open image or when you load color map, no other file will be opened automatically.

Lesson 3

Color Map Editing

Dylan 3a

Open Dylan project. This is preview of design from previous lesson. You can see that colors are mingled one into other. Also, colors are rather bleak. We will adjust colors and their layout in this lesson. First of all, save the Color Map.

Dylan 3b

Open Color Map in Painter. Let's adjust the colors layout.

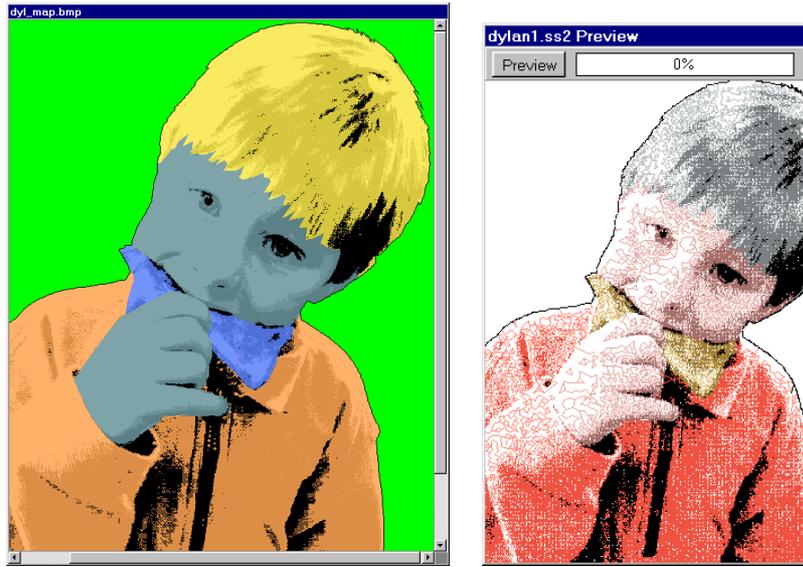


Dylan 3c

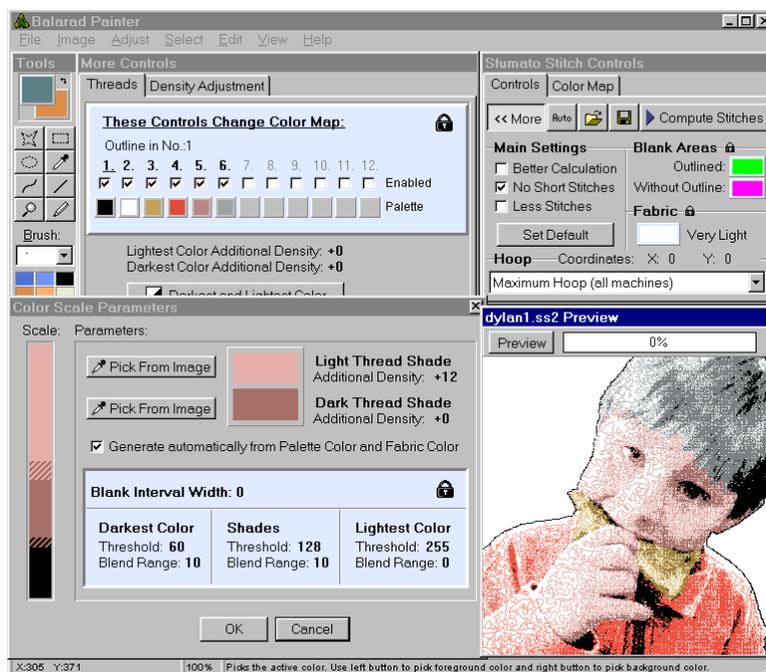
Clear the Color Map with Replacing Colors tool. You should achieve similar Color Map as shown on this picture. Save image (map) on disc. Reopen Dylan image. Load edited Color Map into Color Map window.

Dylan 3d

Hit Preview button. You can see that layout of colors is ok now. I think that light pink tone on face is rather loose. We should increase density of this color.

Dylan 3e

Click on Scale no. 5 and increase the density of Light Shade to +12 (I found that value by trial and error method). Hit the Preview button to see result.



Dylan 3f

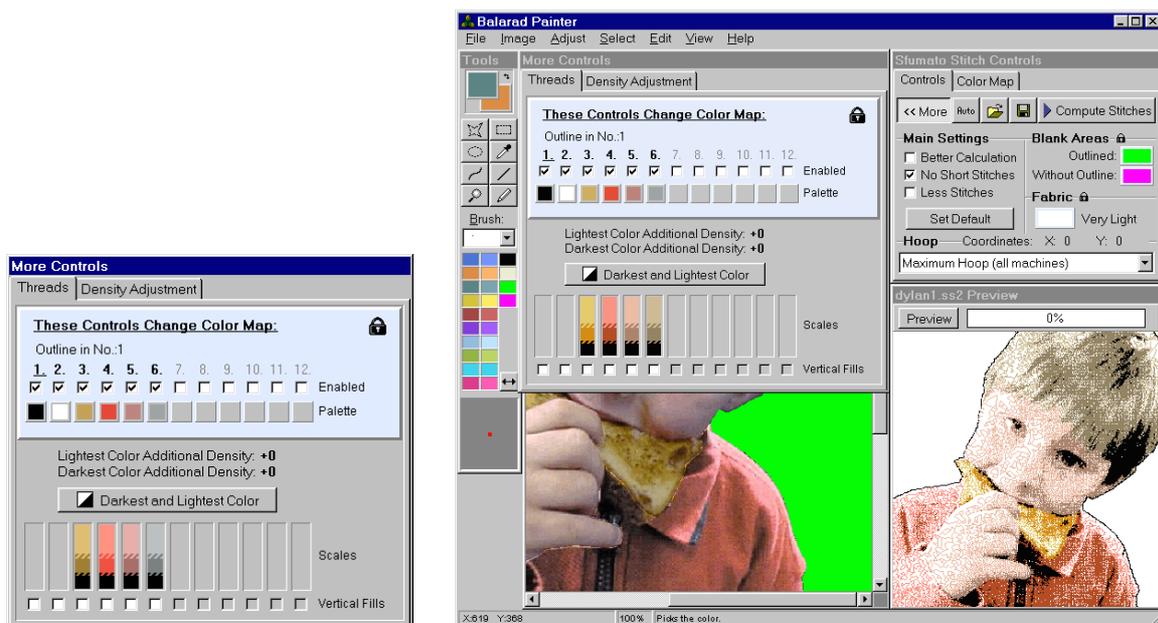
Now we should adjust colors. Old colors are shown on this picture. Click one-by-one on each color scale. You can either adjust shades manually or pick them from photo.

Dylan 3g

I have chosen these colors. I have also increased density of bright red color slightly. Hit Preview to see design in new colors. Now it seems to me that there are several places that could look better:

- We should add another color for irises.
- We should replace black in hair with some lighter (new) color, so that the colors gradation is smoother.
- We should add more black to left eye and remove some black from right eye.
- We should emphasize right nostril by adding more black.
- We should make several lighter strips in the large black area on hair to make it look more realistic.

All above changes can be achieved by further editing of Color Map.



Dylan 3h

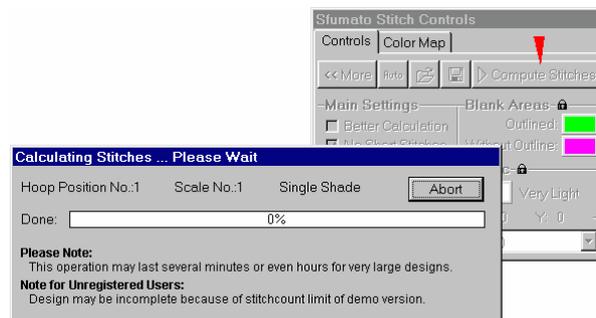
Open the previously edited Color Map in Painter and make above mentioned changes. I have used shades from new (no.7) scale for irises (dark shade) and hair (light shade). I have also make some strokes with paint tool to emphasize eyes outlines, nostril and to make some highlight in the dark area of hair. Compare newly edited Map (left side) to previous Map (right side). Save image (map) from Painter. Open Dylan image in Painter. Then click on Color Map window and UNLOCK THE MAP. It is locked since the last loading of map, but now we need to unlock it, so that we can enable new color scale (no.7). Then click on <<More button and enable scale no.7. Now load the newly edited Color Map.

Lesson 4

Finishing Design

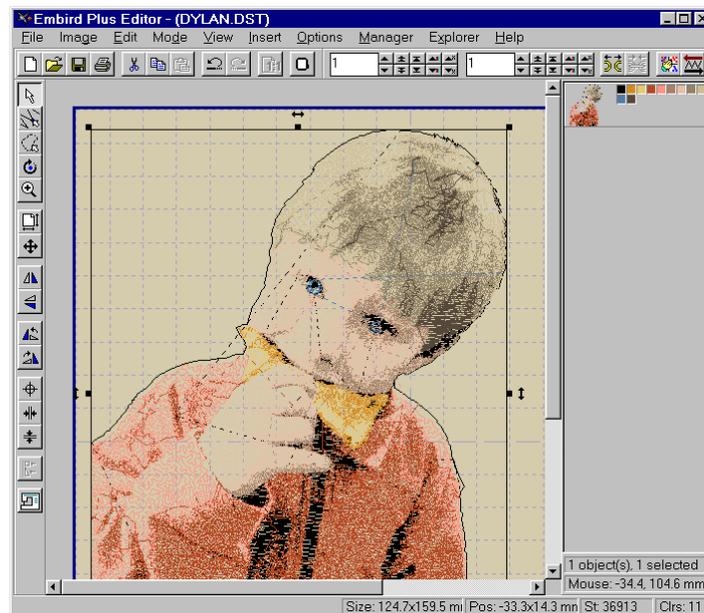
Dylan 4a

Open the Dylan project from previous session. We are close to finishing design now. Click on Compute Stitches button. Wait until calculation is finished. Program will ask you whether you want to put design into Embird Editor or not. Hit OK. Sfumato will be closed and design appears in Editor window.



Dylan 4b

Save design in desired file format from Editor. Close Editor.

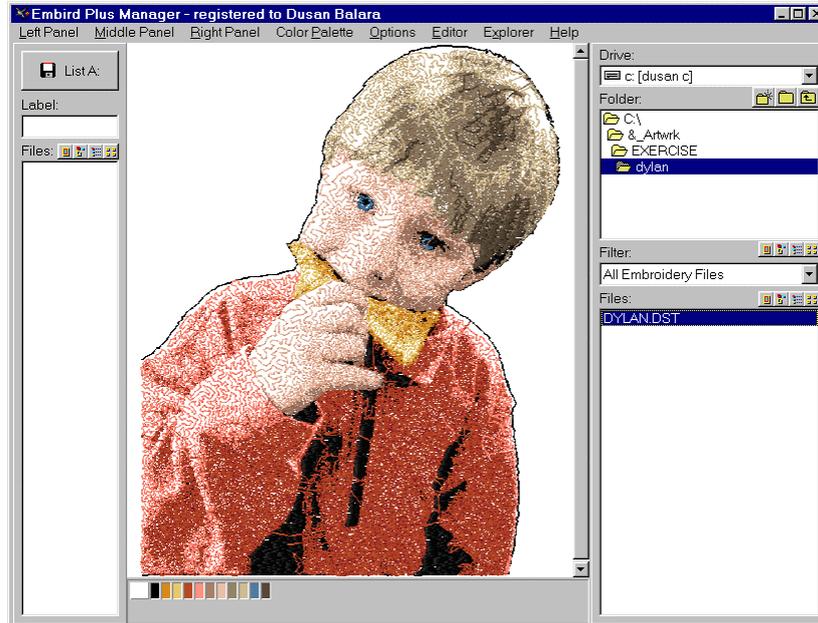


Dylan 4c

Design appears in the Embird Manager. I am quite satisfied with design, but there are several things that I could make better:

1. The nose could be more realistic. I should emphasize the shadow on the nose.

2. I do not like the black outline. I would let outline where it is to give design sharp edges, but I would divide outline into 4 parts: outline of shirt (dark red), outline of cake (orange), outlines of face (dark pink), and outline of hair (dark brown). Let's go back to Sfumato and make above changes.

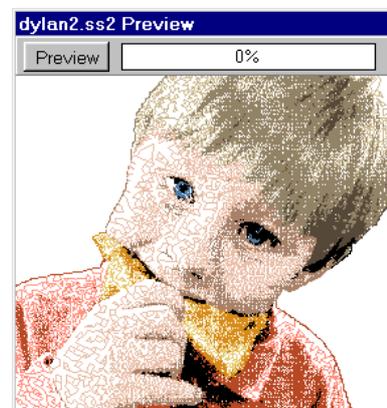


Dylan 4d

Run Sfumato, open the Color Map in Painter and edit above mentioned parts. This picture shows changes that I have made to Color Map. I have added more dark teal to nose and below left eye. I have also changed color of outline.

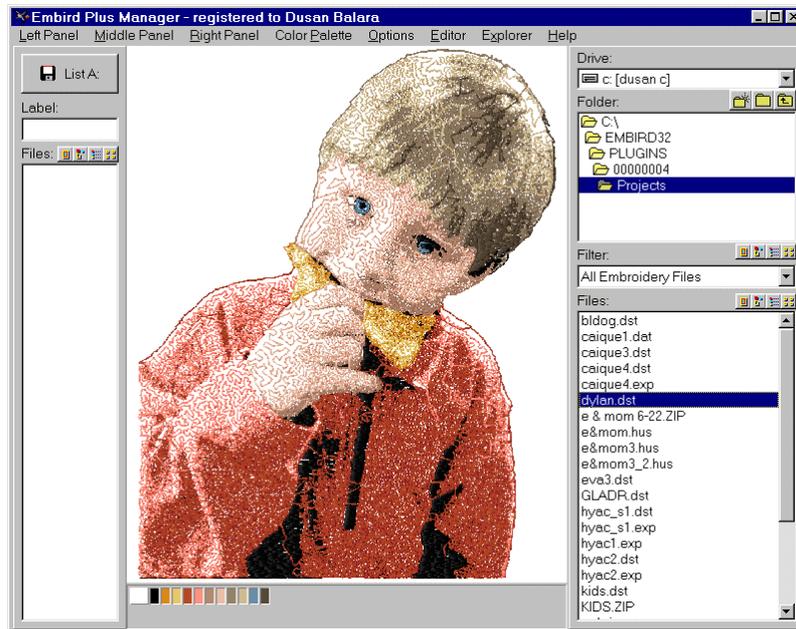
Dylan 4e

Save edited Map, and open Dylan project. It will launch image and new Map automatically. Hit Preview to see changes.



Dylan 4f

Compute Stitches, put design into Editor, save it in desired format and close Editor. Design will appear in the Manager window. I think that we can consider it finished now. Maybe I should make outline of shirt on left shoulder light red rather than dark red.



Discussion to Lesson 4

Tip: Sfumato takes color from Color Map and density from brightness of image. When you change color of outline in Color Map to some bright color, you may ask if the density of outline will be sufficient. It will, because Sfumato always uses the same density for outline, regardless of its color.