

# Sfumato Stitch

## Exercise 3 – Molly Design

This booklet is compilation of an on-line exercise posted to Sfumato Stitch group (<http://groups.yahoo.com/group/sfumatostitch>). The Molly photo used in this exercise is available for download in Files section at <http://groups.yahoo.com/group/sfumatostitch/files>

### Lesson 1

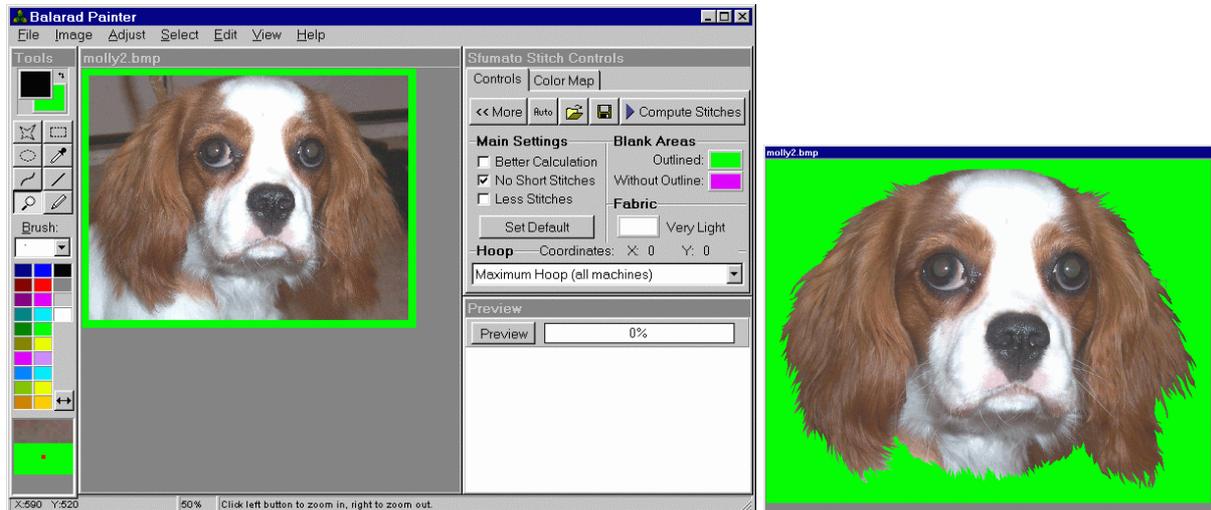
#### Adjusting the Brightness and Contrast of Image

##### Molly 1a

Open the Molly image and Crop it. Then Resample it to desired size (I have resampled image to 4 inches height). Before you start delete the background, it is useful to Add Border to image. I think that delete is easier then, because you do not need to be so precise near edges of image. Add Border function is in Image submenu.

##### Molly 1b

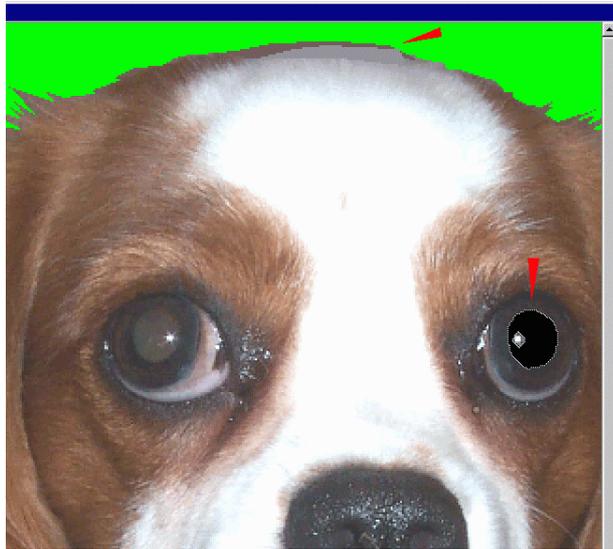
Delete the background.



##### Molly 1c

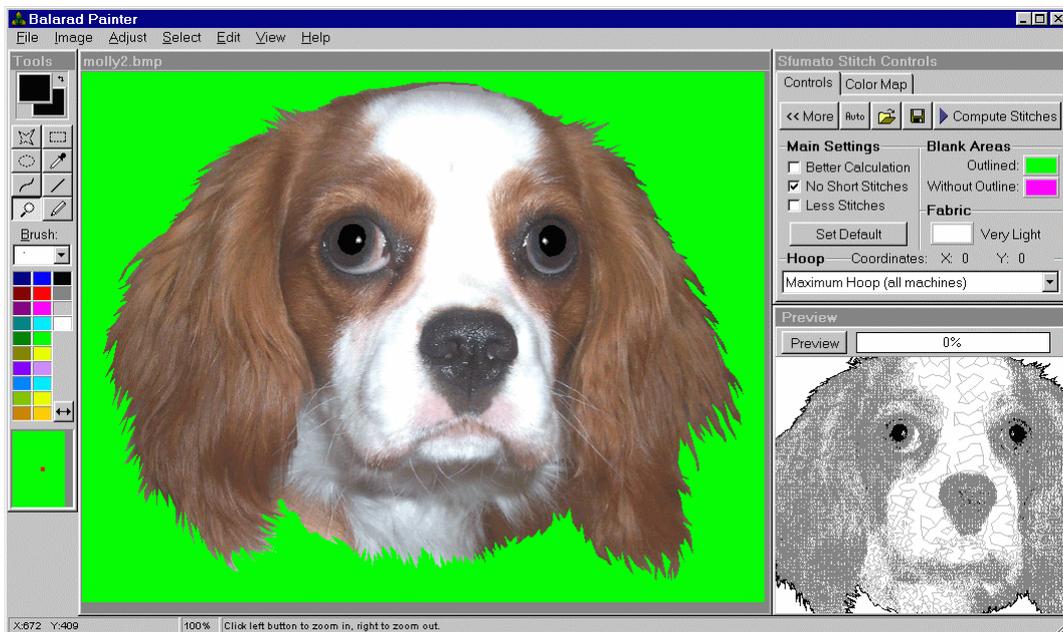
You can see that the centres of irises are too light, probably because of the flash of camera. I have changed them to black color. Pick the black color from palette with right button (i.e. as background color). Then select the circle. Of course, we want to preserve the white spot (highlight). Therefore, make further selection. Select the highlight with ALT key depressed. This will subtract the new selection (highlight) from old selection (the whole center of iris). When desired area is selected, hit the DELETE key to fill it with black color. Do the same for second eye. On the original photo, the small part on the top of head was missing. Therefore,

I have added it using the polygonal selection and DELETE key. Thus, I have filled the missing part with colors that I have picked from image (brown and gray).



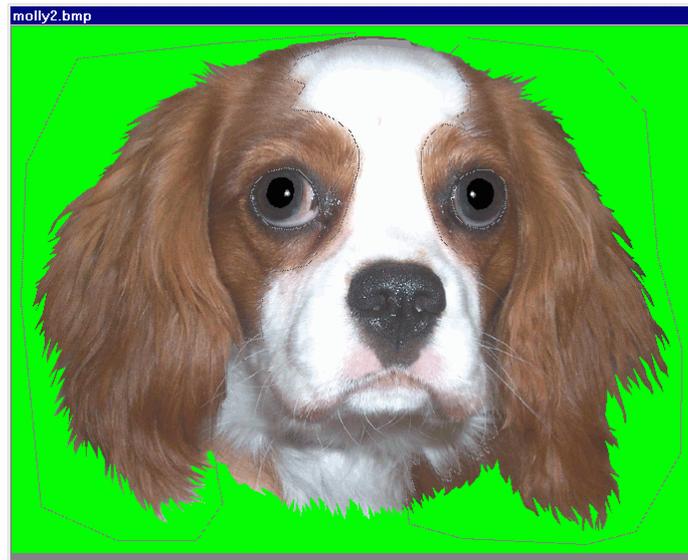
### Molly 1d

We have finished the preliminary steps. Now hit the Preview button to see design in grayscale. We will see if brightness and contrast of design is good. I would say that it is not. The design is too flat. I would add black to ears and to nose and also make the line on mouth more visible.



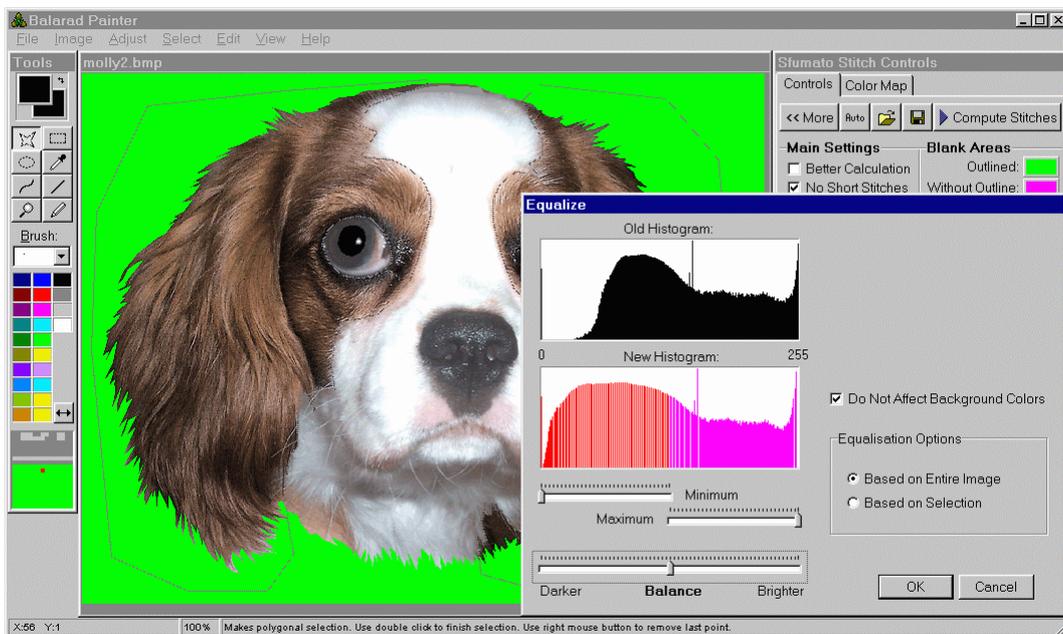
### Molly 1e

Let's start with ears and all part that are of same color as ears. Select them with polygonal selection tool. After you select the one side, press the SHIFT key to add new selection (the second side). Then press the ALT key and subtract the eyes areas from selection.



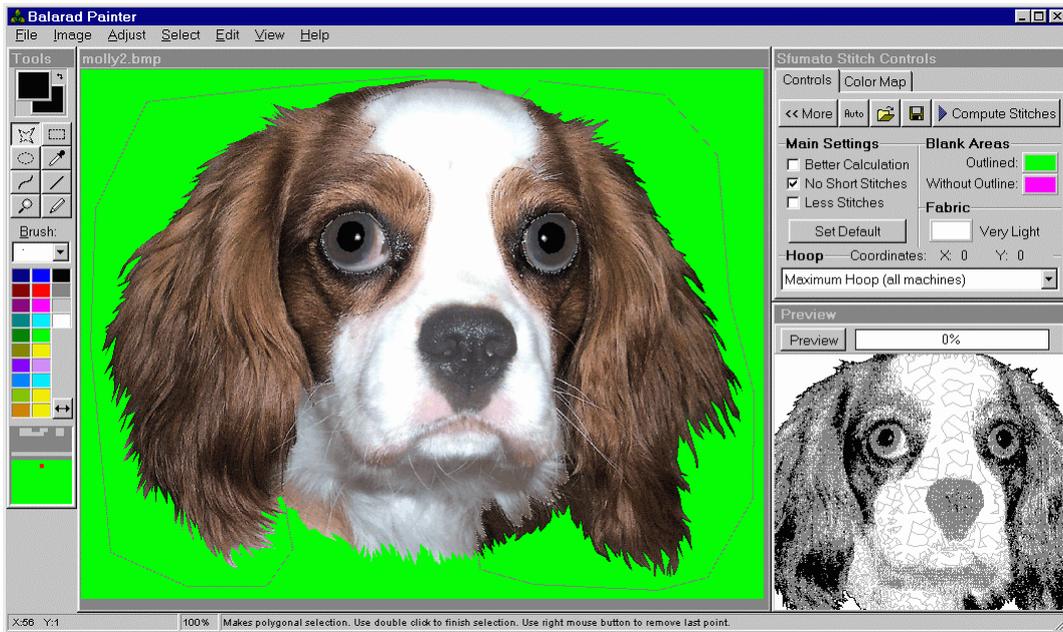
### Molly 1f

Use Sharpen function to make the fur more visible. It will not affect the final design very much, but it should help a little. Then Equalize selected area to distribute colors in wider range.



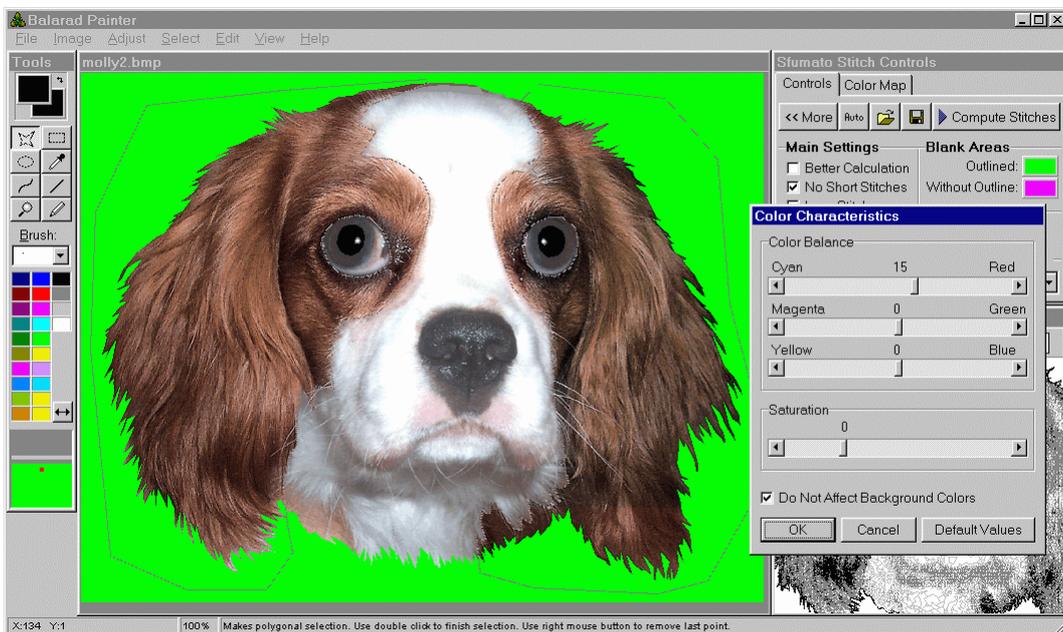
### Molly 1g

Hit Preview. There is some black on ears now. There is no black on original Molly image, but we will replace this black with dark brown later. On this level, the black color will help us to get third (besides light and dark gray) shade to ears.



### Molly 1h

Since we have the ears and similar color areas selected, let's do one more thing: Adjust Color Characteristics so that we shift all selected colors towards red. This will make bigger color difference between selected area and the rest of image. It will make the colors selection (in Sfumato, later) easier.

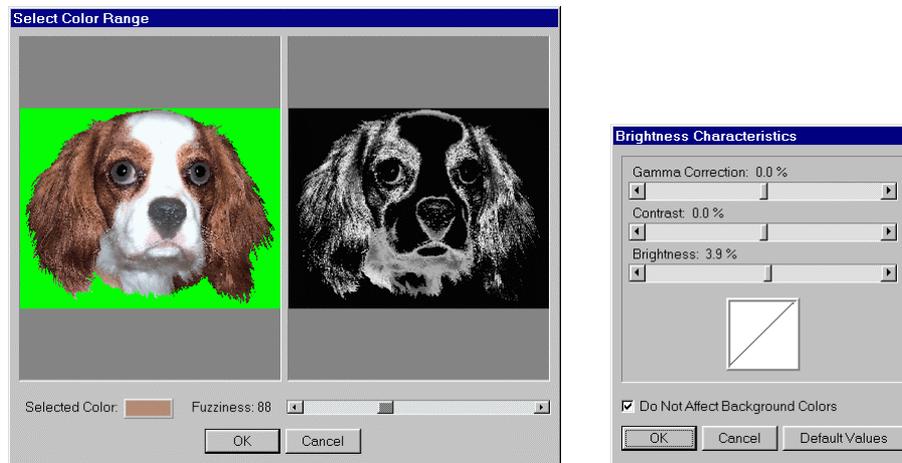


### Molly 1i

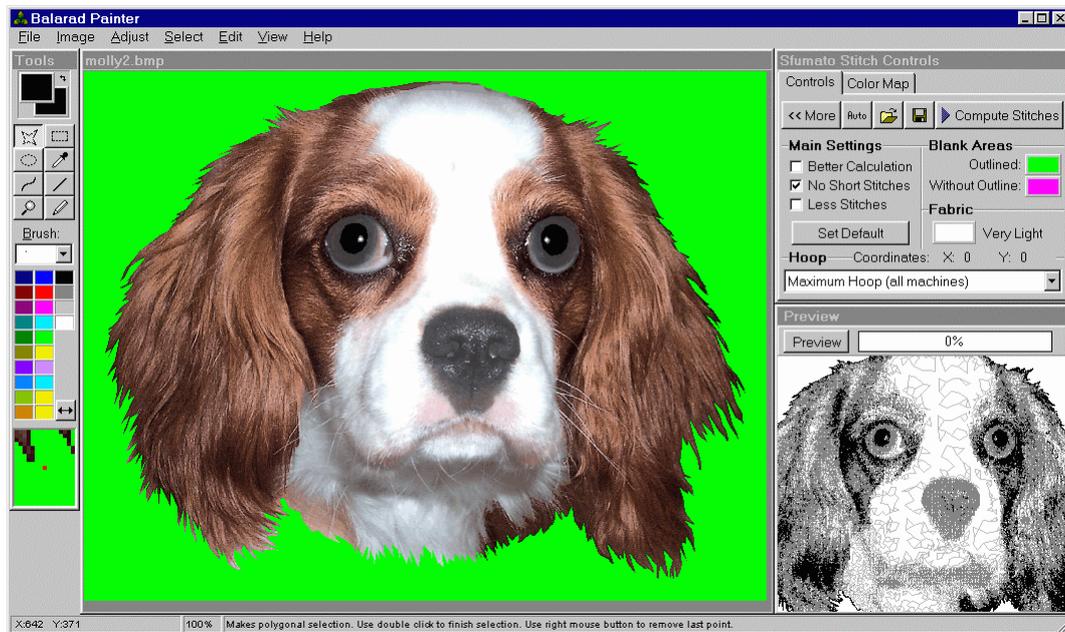
I would say that little more highlights are required on ears. We will make the bright pixels even brighter. To do this, we need to select just the bright pixels from the areas that we have already selected. Use Select Color Range command to select just the bright pixels from existing selection. When this window appear, pick some bright color from image and adjust Fuzziness to select desired area.

Molly 1j

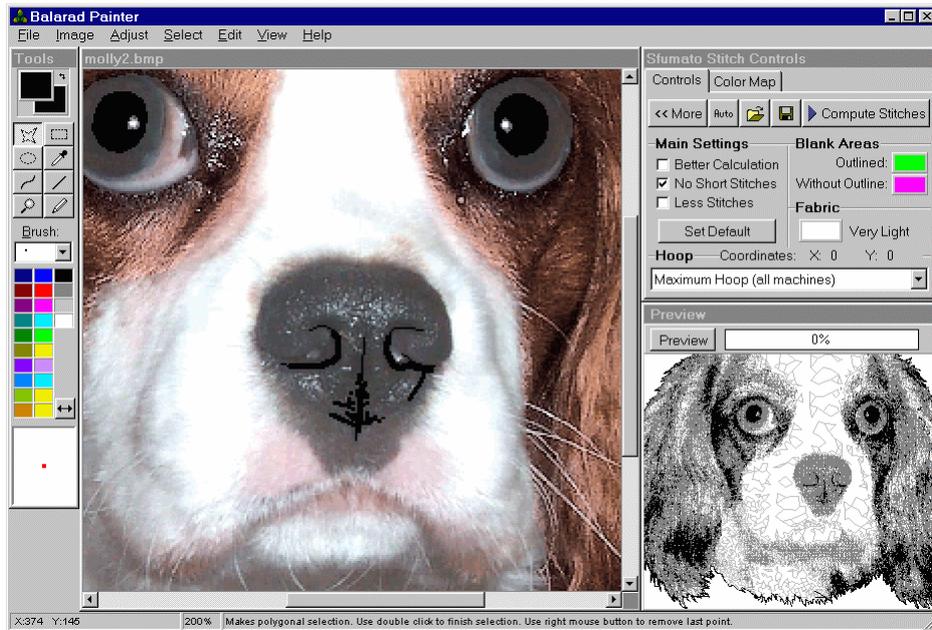
When the Color Range Selection is done, Adjust the Brightness of selected pixels.

Molly 1k

Hit Preview. The ears and all brown areas have quite good contrast now.

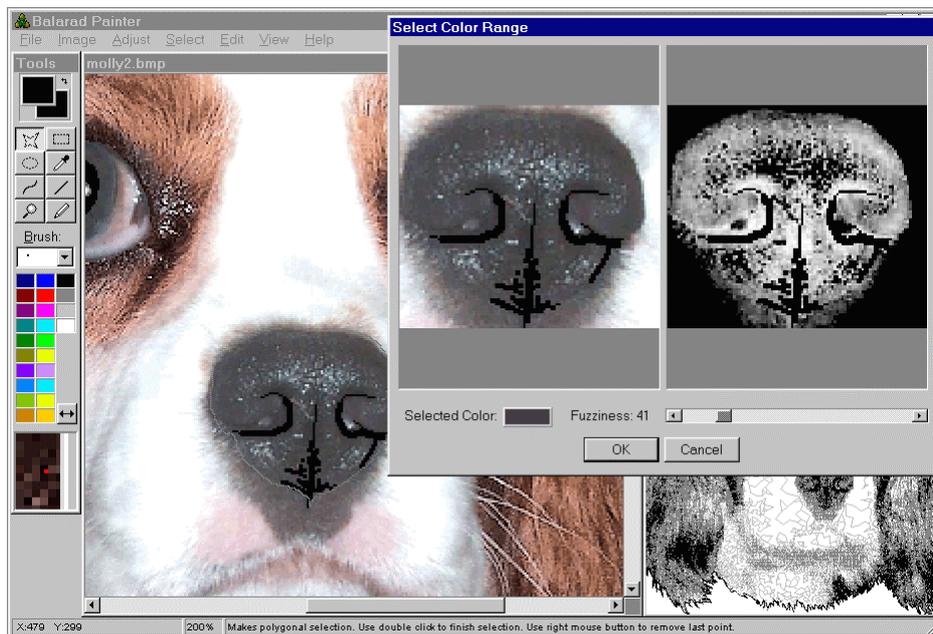
Molly 1l

Let's adjust the nose. Right now it is very flat on Preview. There are several deep lines in dog's nose. I have emphasized them with black lines. Hit Preview. In spite of black lines, the nose is still too flat.



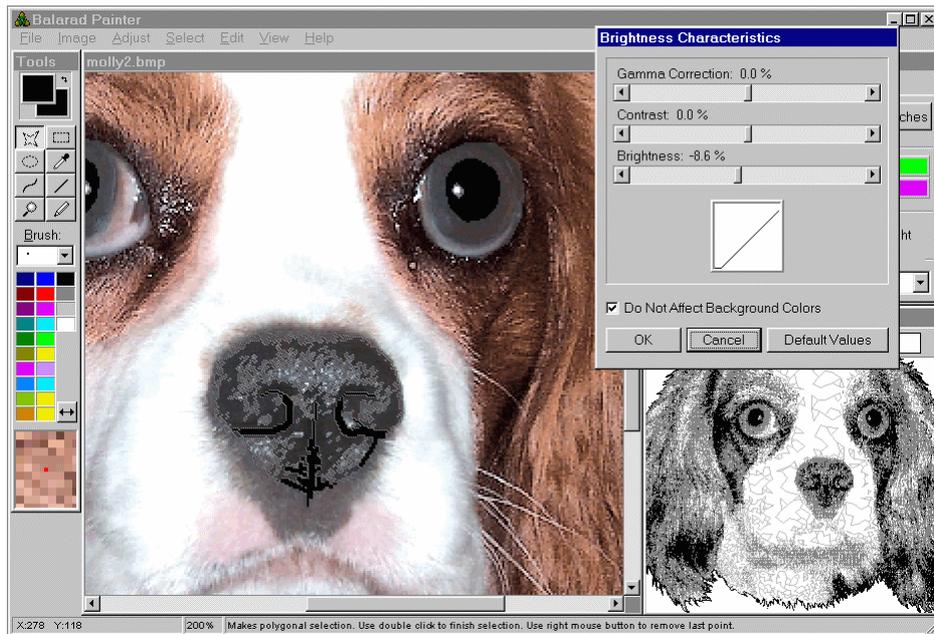
### Molly 1m

Let's darken the dark pixels on nose. First, select the whole nose with polygonal selection tool. Then use Select Color Range command. When this window appears, pick the darkest gray color from nose. Adjust the fuzziness so that about half of nose area is selected.



### Molly 1n

When selection is done, Adjust Brightness (decrease it), to darken dark parts of nose.

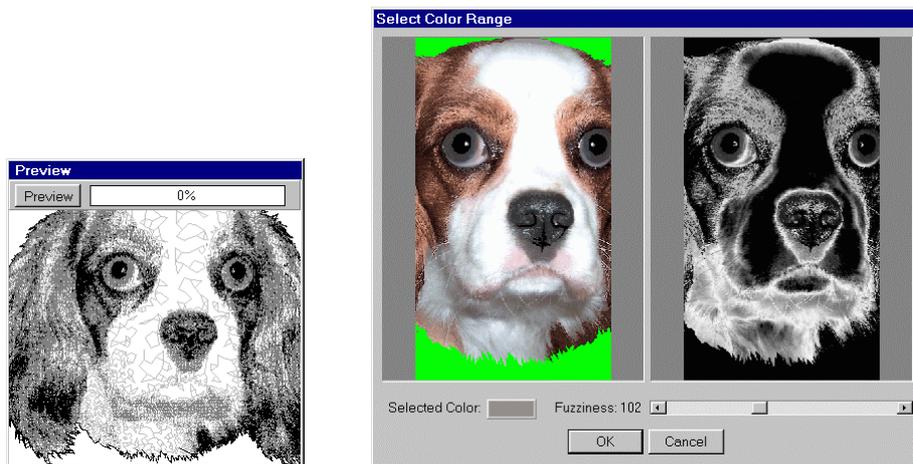


### Molly 1o

Hit Preview. The contrast of nose is good now.

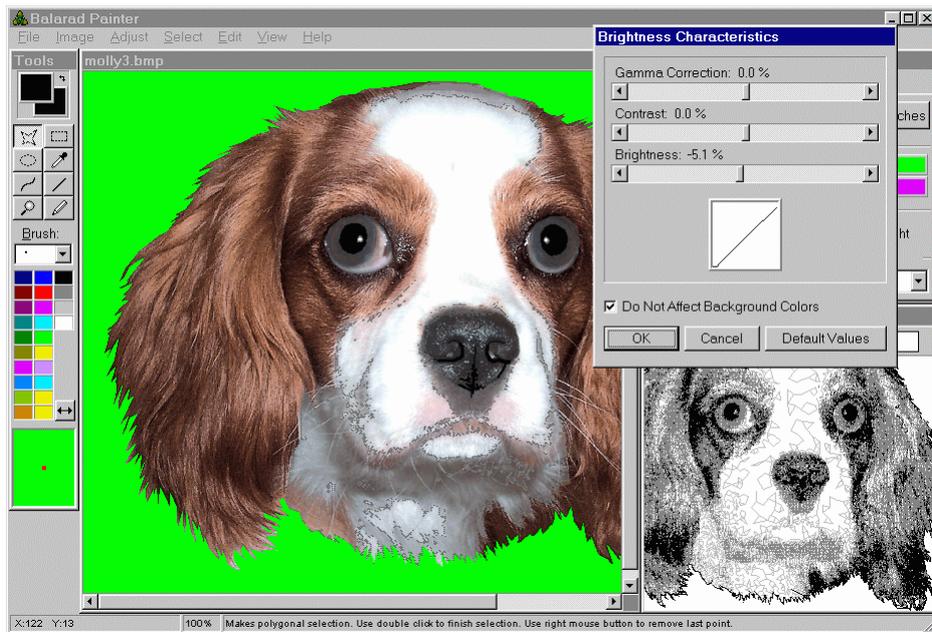
### Molly 1p

Now we should adjust the white part of Molly's face. We should make the shadow under chin and the mouth line more visible. As we want to change just these shadow parts, we will not use equalization, but we will adjust the brightness of Color Range Selection. First, select the whole white part of face. Then press the ALT key and subtract the nose area from selection. Then use Select Color Range function and select the shadow (gray) tones.



### Molly 1q

Decrease the brightness of selected parts.

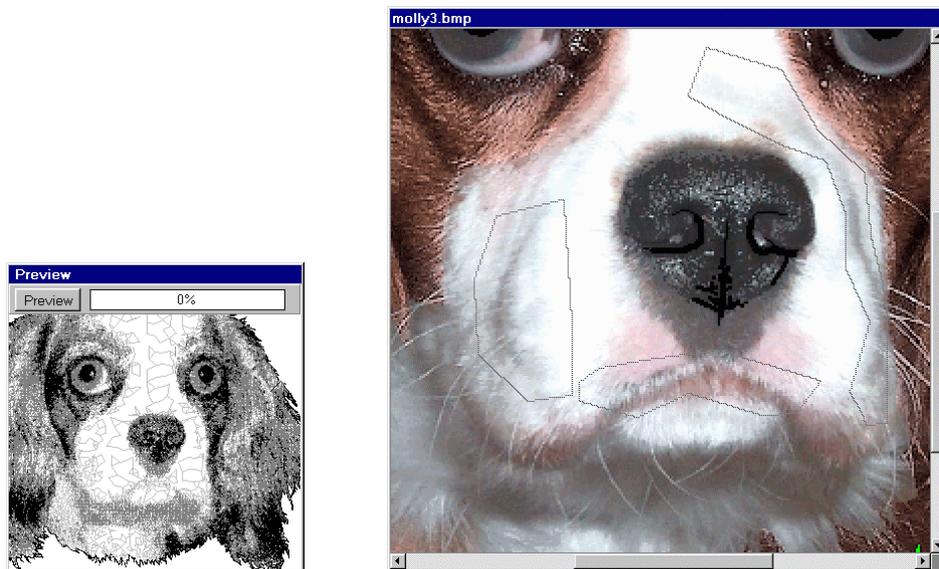


### Molly 1r

Hit Preview. The shadows are slightly more visible, but not enough.

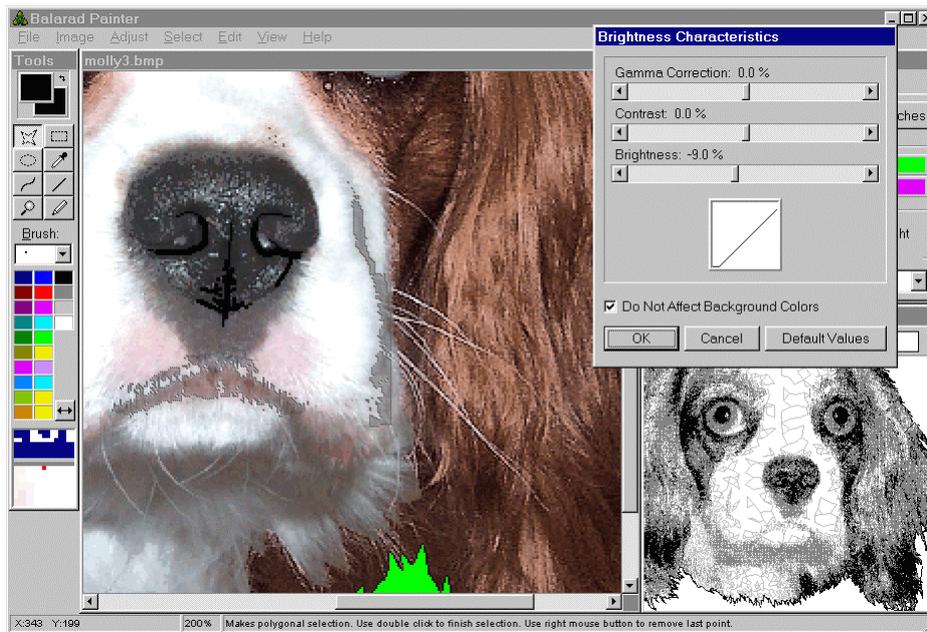
### Molly 1s

Let's make some parts even more visible. Select areas shown on this picture. Hold the Shift button depressed while making this multi selection.



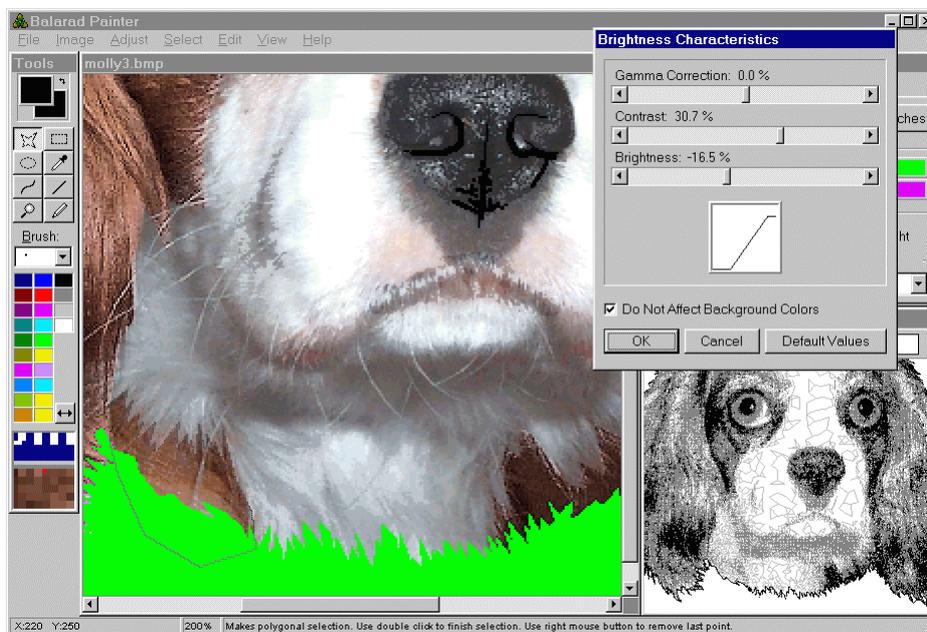
### Molly 1t

Make the further Color Range Selection and select only the dark pixels. Then decrease their Brightness. Hit Preview. The mouth and other shadows are little more visible now.



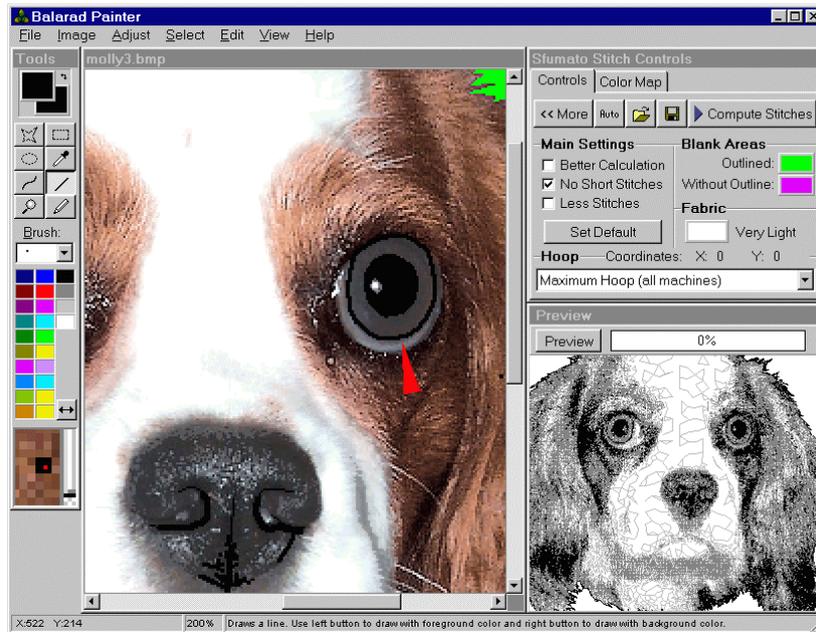
### Molly 1u

There is a small brown area on the left side of neck that is too bright. Select this area and darken it somehow.



### Molly 1v

One more thing: the irises of dogs use to have a black outline. Paint this outline with Draw Line tool. Hit Preview. The contrast of image is quite good now. Design is prepared for adding colors. We will do it in next lesson. Do not forget to save adjusted image.



## Discussion to Lesson 1

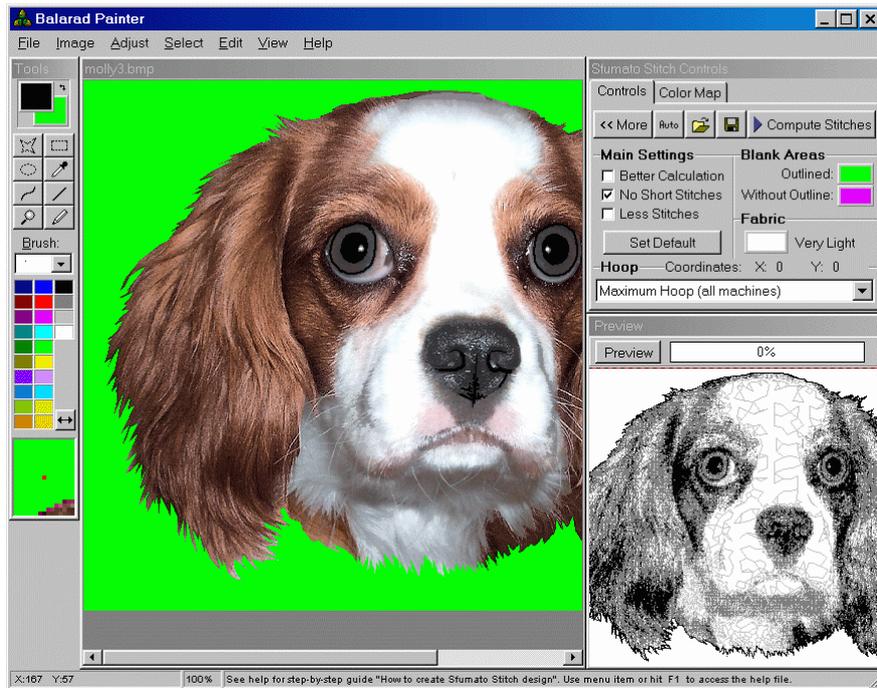
**Question:** I've done cropping many times on other programs but I'm having trouble here. What is the trick when the picture is much bigger than the screen to select the part you want with the rectangle selection. Whether you move down or up or sideways, can't get the whole area needed in the rectangle. I've had to downsize the picture before cropping though I am sure that is not the right way.

**Answer:** You should zoom out image to make it all visible. Select the zoom tool in Sfumato and click right button on image several times. The smallest zoom is 25%.

## Lesson 2 Colors

### Molly 2a

This is image adjusted in previous lesson. e had adjusted brightness and contrast of image. Now we will add colors. There are two main color areas: reddish-brown and gray-white in image. We should enable 2 color scales.

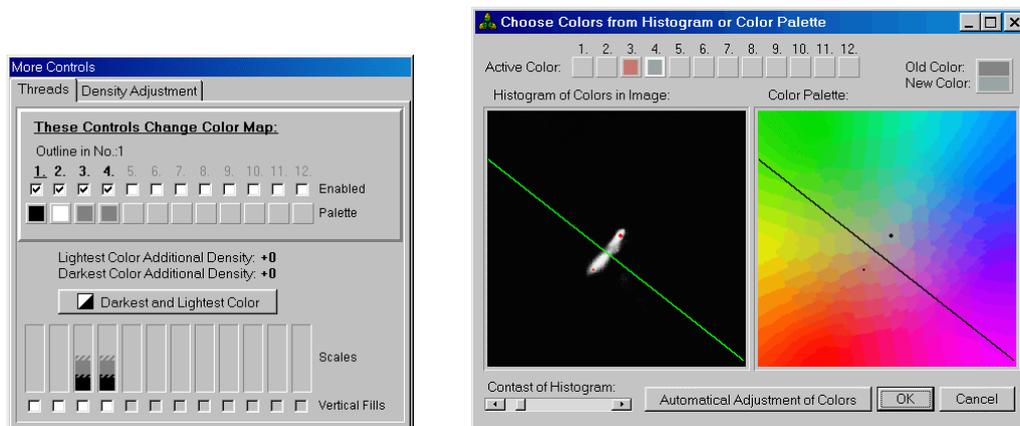


### Molly 2b

Enable two scales. Click on any enabled palette color to open Histogram window.

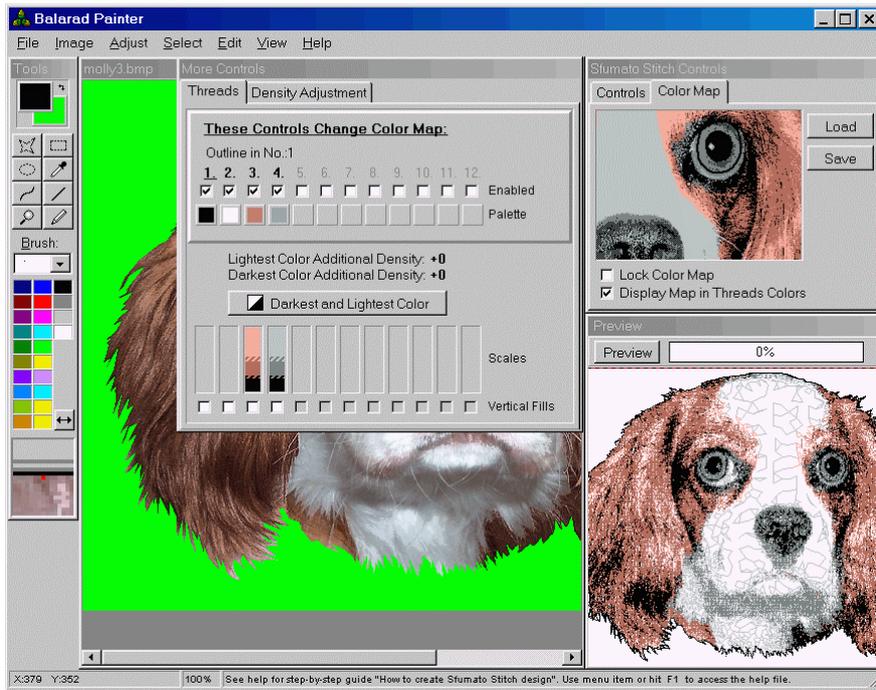
### Molly 2c

The histogram shows one prolonged cloud. Cloud expands from reddish area to grayish area. Let's place one dot (color) into reddish corner and one dot (color) into grayish corner.



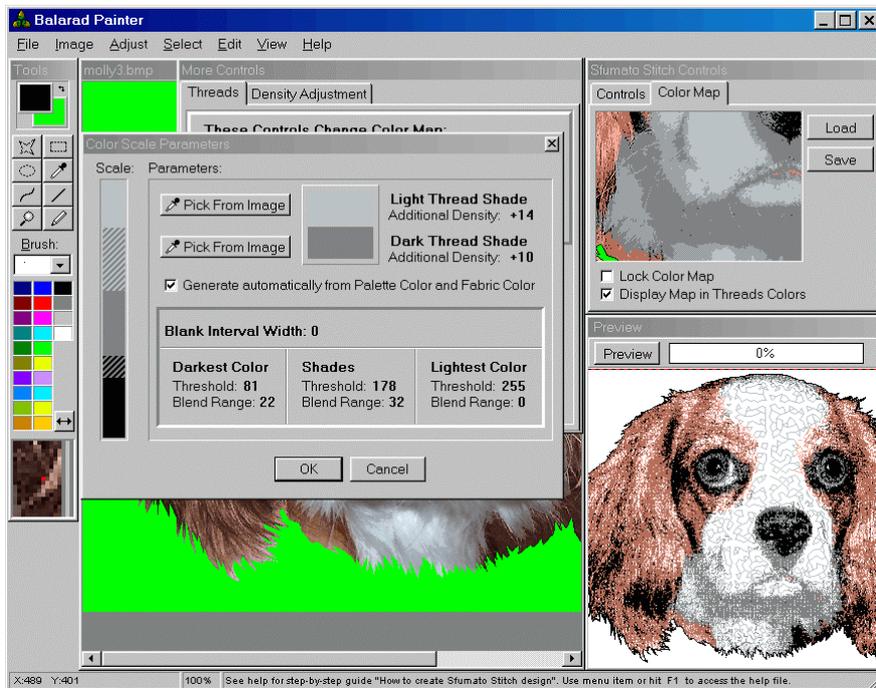
### Molly 2d

Close Histogram window and hit Preview. The color layout is quite good, and areas are clearly separated. However, I would add another new color to eyes and to nose. Also, I would change black color on ears to dark brown. To achieve this, we will edit the color map later.



### Molly 2e

Let's adjust some parameters before we start editing of Color Map. I would say that light gray is too loose. Increase the Additional Density of light gray and hit Preview. Also, I had adjusted threshold of shades, their blend range and threshold of black. You can see effect of thresholds adjustment immediately in Color Map window (top right corner of screen). Hit Preview to see effect on design.



### Molly 2f

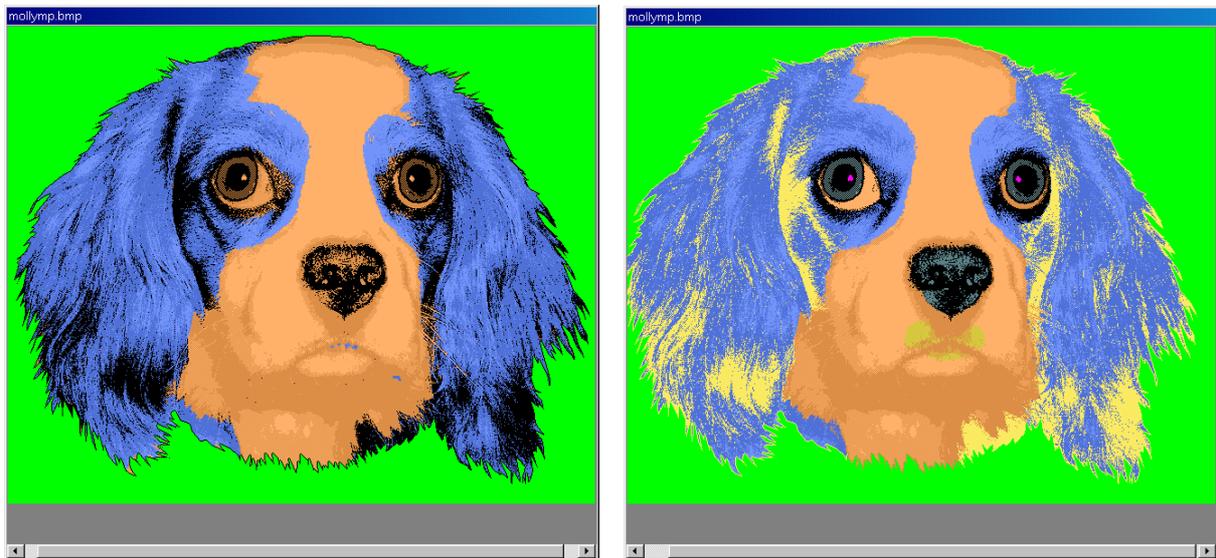
Now save the Color Map and open it in Painter.

Molly 2g

Edit Color Map. I have done following changes:

- Clear ears and adjoined areas from brown.
- Clear brown areas from solitary blue pixels.
- Make left eye light brown and right eye dark brown (because it is in shadow).
- Make nose another color (light shade of scale no.5).
- Make irises another color (dark shade of scale no.5).
- Make highlights in irises background color without outline (Fuchsia) to make them empty of stitches.
- Replace light brown around mouth with new color (dark shade of scale no.6). We will make this area pink in real design.
- Replace black on ears and adjoined areas (outline included) with a new color (light shade of scale no.6).
- Replace black part of outline that runs on bottom part of brown neck with dark brown.

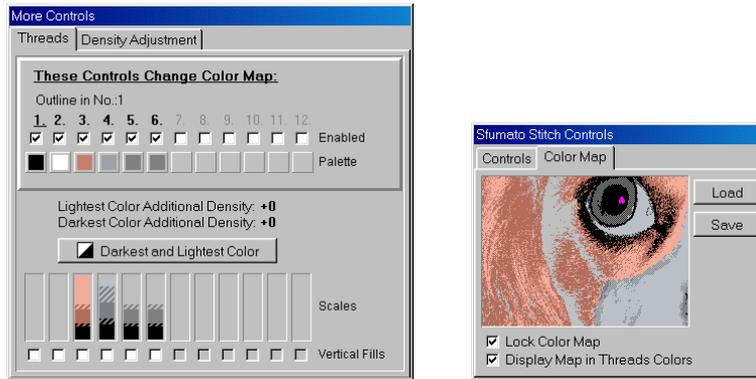
Save image (map) from Painter menu and open Molly image in Painter.

Molly 2h

Enable two new scales (no.5 and 6) before you load edited Color Map.

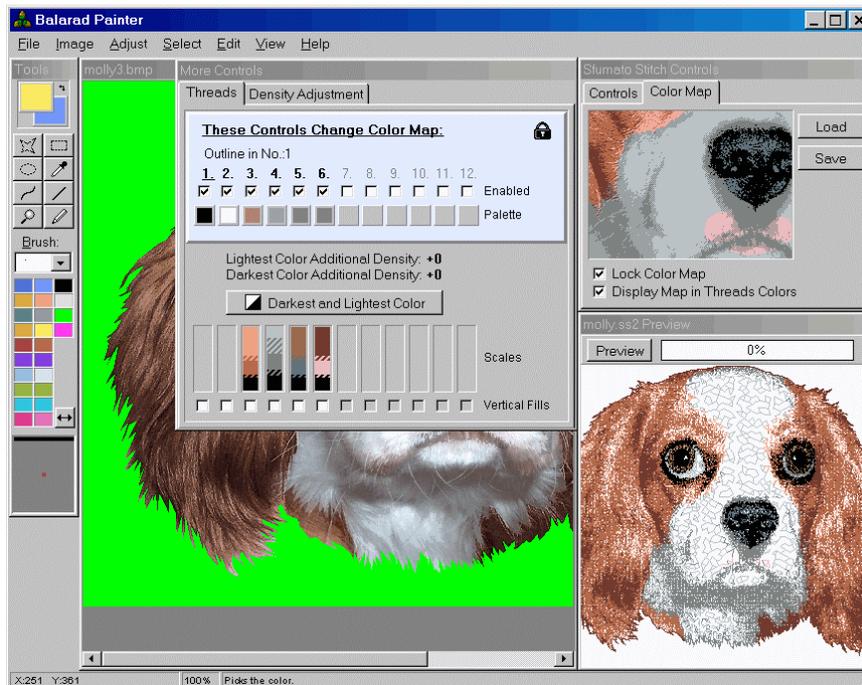
Molly 2i

Load edited Color Map. This operation will lock some controls that could spoil the new map.



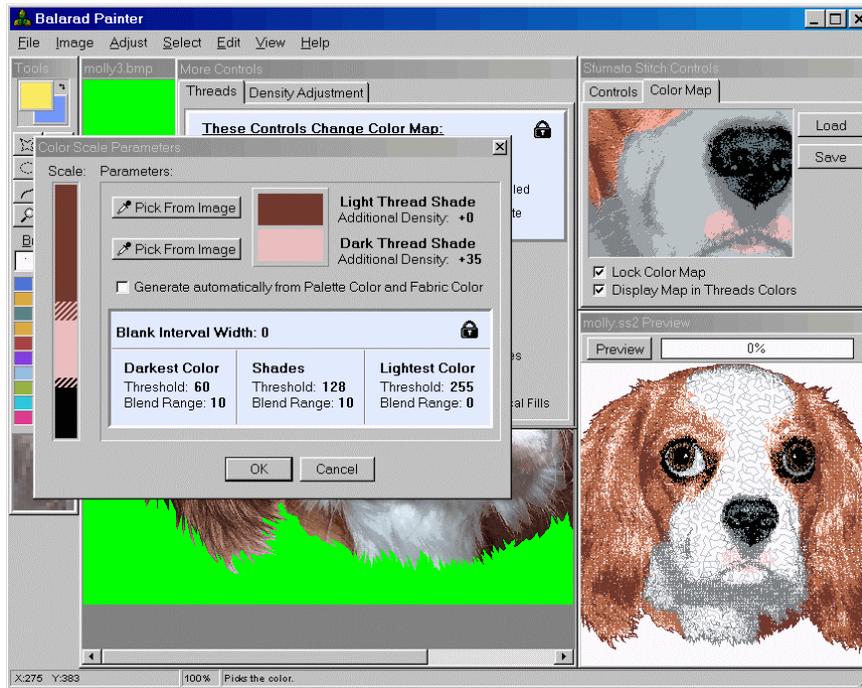
### Molly 2j

Now adjust shades colors of newly enabled scales and hit Preview. As you may remember, light shade of scale 5. is nose, dark shade is irises color. Light shade of scale no. 6 is darkest brown for fur and dark shade is pink area around mouth. As you can see on Preview, the pink area is too loose. We should increase its density.



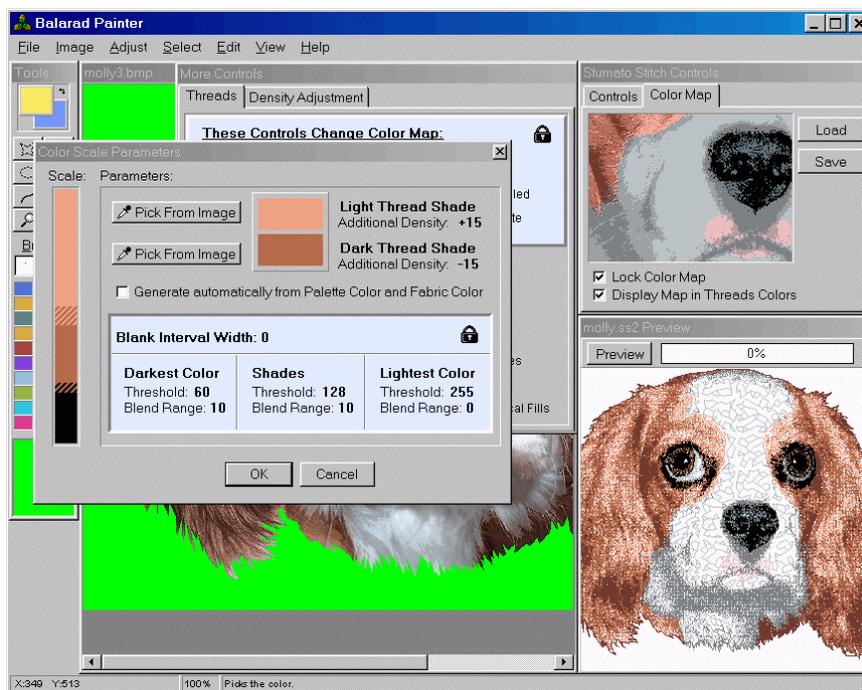
### Molly 2k

Increase density of pink and hit Preview.



## Molly 21

I would also increase density of lightest brown on ears and decrease density of medium brown. Now I would say that preview looks quite good. Please save the project file clicking the floppy disc icon in Sfumato Controls window.



## Discussion to Lesson 2

**Question:** I changed the colour map to look exactly like your picture. Now, where do I go wrong? I saved the image (which I am assuming is a colour map) by using the the button on the Colour map Page. Then I reopened the image (the adjusted bmp file from the first lesson) and also loaded by using the button on the Colour Map page the colour map I had just saved. Then in I have hit the Preview button and now I have design in the same old colours. What happened?

**Answer:** when you finish editing of Color Map in Painter, you should save it from Painter menu FILE>SAVE. It is because Map was opened instead of image and it should be saved in the same way as image. The "save" button on Color Map page serves only for first "EXPORT" of map. Then load map into Painter as image, edit it, and save it as image. Then load it black to Color Map page.

## Lesson 3

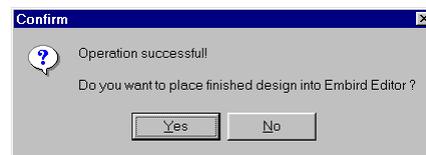
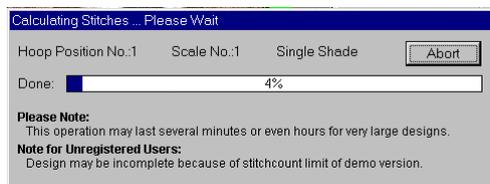
### Finishing Design

#### Molly 3a

Open the Molly project saved in previous session. Hit Compute Stitches button to generate design.

#### Molly 3b

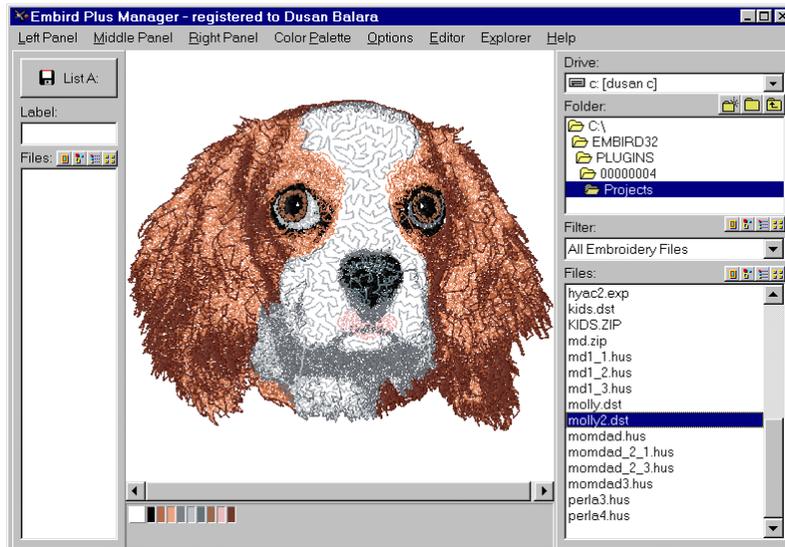
When calculation is finished, click YES to put design into Embird Editor. In Editor, save design in desired format and close Editor. Design will appear in Manager window.



#### Molly 3c

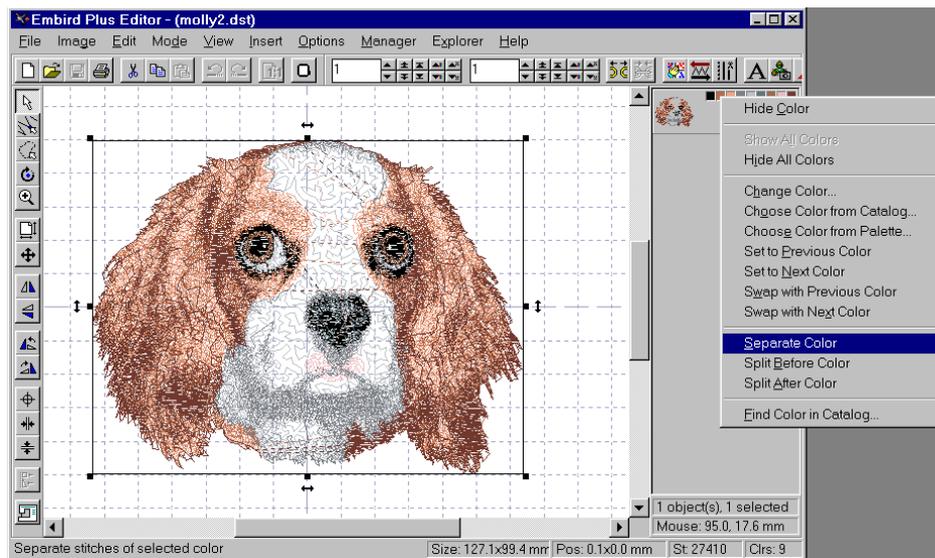
This is 3D preview of design. I would change order of some colors:

- The medium brown on ears is sewn as first of brown shades and it is hardly visible, therefore. I would swap it with light brown.
- Pink color is sewn after dark gray. I would like to sew pink before dark gray to make mouth little more visible and compact.



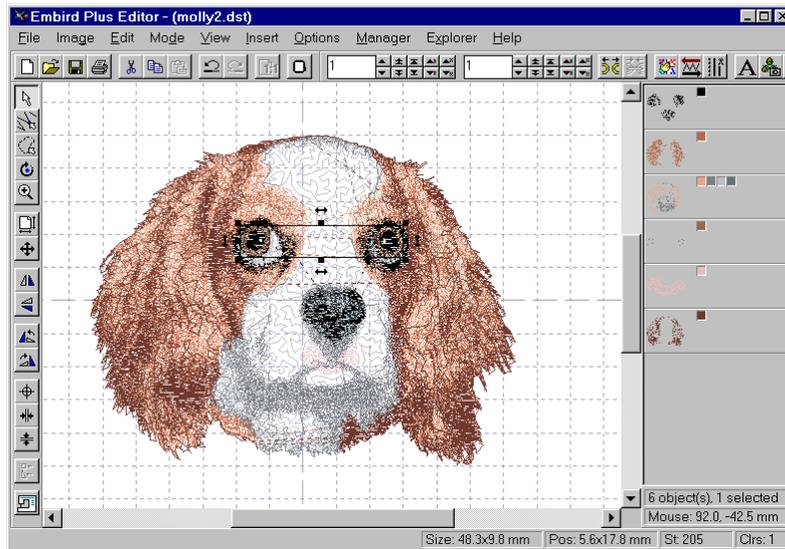
### Molly 3d

Move design to Editor and separate colors with right click on color boxes next to design icon. When pop-up menu opens, click the Separate Color.



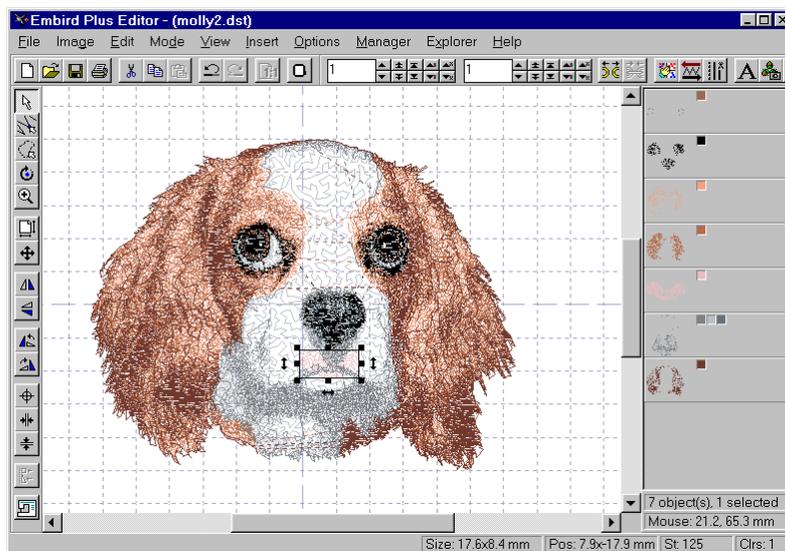
### Molly 3e

Separate all necessary colors.



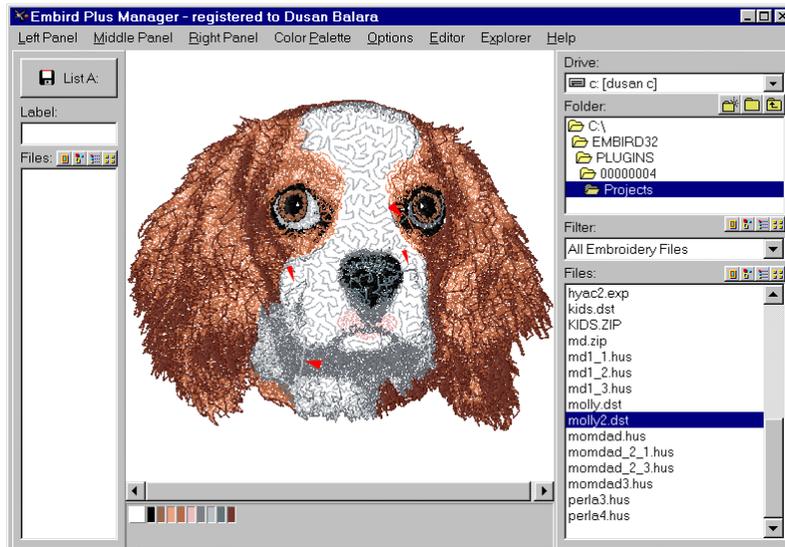
### Molly 3f

Drag-and-Drop separated objects (icons) in window on right side (objects inspector window) to change their order. Please note that I have put pink before gray and medium brown after light brown. I have also put eyes color before black but it didn't look as I wanted, so I put it back, later.



### Molly 3g

Save design, close Editor and return to Manager. The medium brown is much more visible now. Let's make some further editing. There are some dark and light gray stitches on face that I do not like. I will replace some of them with several short stitches going through less visible area, or make them jump stitches, or delete them. Of course, your own design will not have exactly the same stitches.



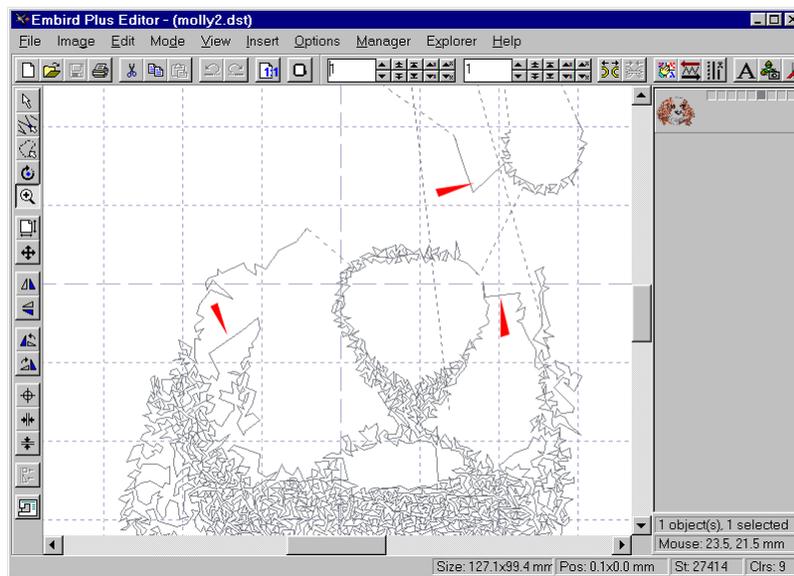
### Molly 3h

Go to Editor and hide all colors except the dark gray. Click right button on color boxes next to design icon to hide/show color. We will edit stitches marked with red arrows.

The long stitch on the left side can be split into 2 or 3 shorter stitches and placed along edge of larger group of stitches.

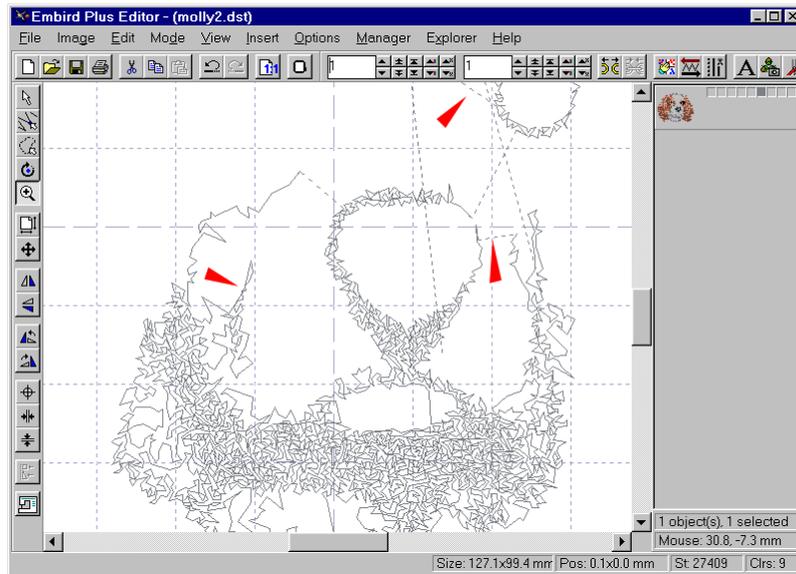
The two long stitches on top (next to eye) should be deleted.

Finally, the stitch on the right side should be changed to jump (floating stitch).



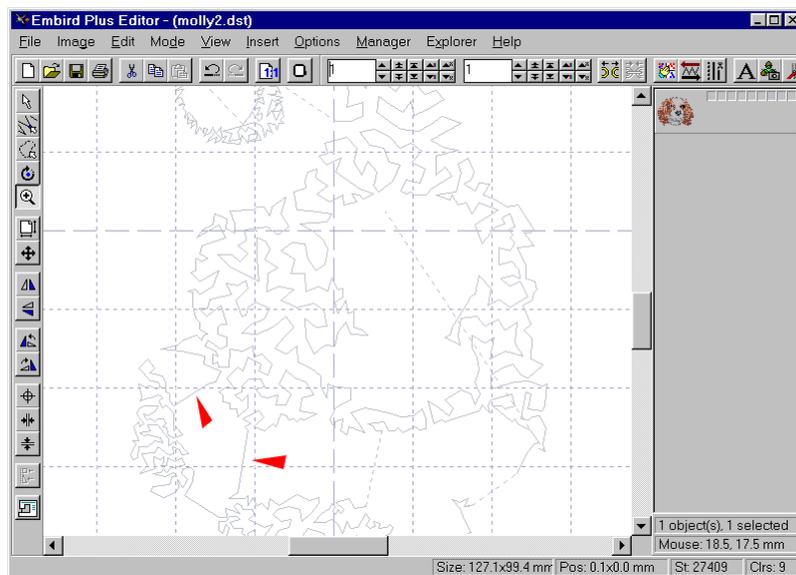
### Molly 3i

You can see edited stitches on this picture.



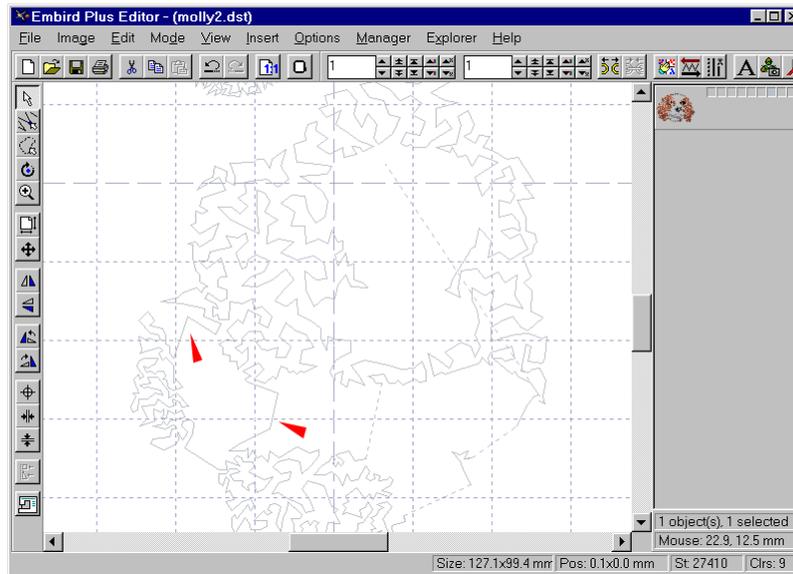
### Molly 3j

Now we should edit the light gray stitches. Hide dark gray and Show light gray. Two long stitches marked by red arrows should be replaced with several meandering shorter stitches to make them look more natural.



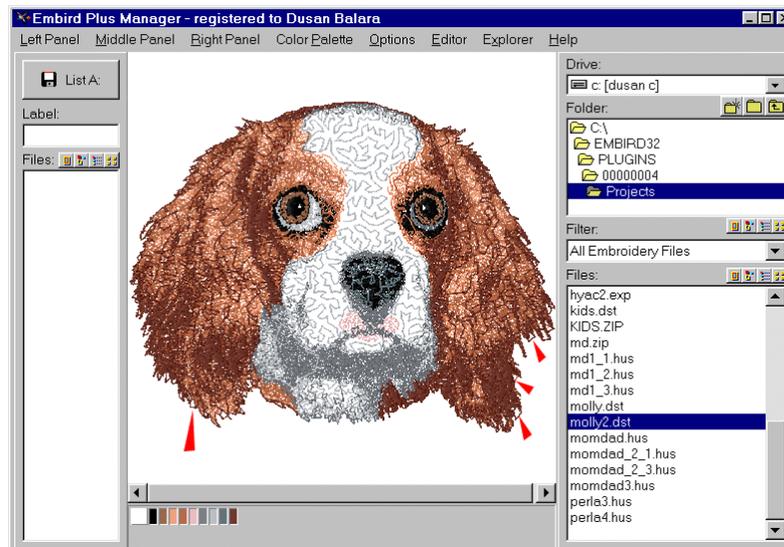
### Molly 3k

Here is result of editing.



### Molly 3l

Save design and return to Manager. There are still some places that should be edited. There are some shortcut stitches on ears that should be divided into two or three stitches each and snapped to edge of design. Go to Editor and edit design.



### Molly 3m

This is final result. I have also brightened the dark gray a little.

