Introduction

Most modern feature animation, especially those from Japan, feature softly graduated color *within* the outlines that follow the animation closely. In many cases, the animator defines the color areas with pencil instead of leaving it to the painter to figure out.

Drawing on paper is easier than drawing on the computer; with PaintMan, you can figure out how the colors work on paper as you animate your character, to ensure the cleanest results on the screen.

These instructions assume that you know the basics of working with RETAS! Pro TraceMan and PaintMan.

Read all these steps before you begin any work; you'll need to know where you're going in the end for each step to make sense. This can't cover everything, of course, so if you are confused about anything, then check out the RETAS! Pro PaintMan manual. Enjoy.

1

Outline color areas with color pencils

This process works by giving TraceMan a number of colored lines that you will be able to "fill over," covering the color line with the color you want to paint with.

After you've done a motion test of the black outline and are satisfied with the results, outline your color areas using red blue and green color pencils, paying attention to how those areas animate across frames.

You can also use up to three more color pencils, but you'll have to tell TraceMan how to pick up those colors, so you're better off sticking to even just blue and red, letting those two colors carve out your color regions.

This allows you to have certain features, such as eyes, that are not completely closed in with black lines for stylistic reasons. For this character here, a solid black outline completely surrounding the eyes would have made him look like he's wearing mascara.

Draw bold, solid lines and take care to close up regions. You can let lines be messy *inside* the color region. Don't worry about erasing stray marks. Make sure that the color lines don't overlap too much; it will save you some extra work later.
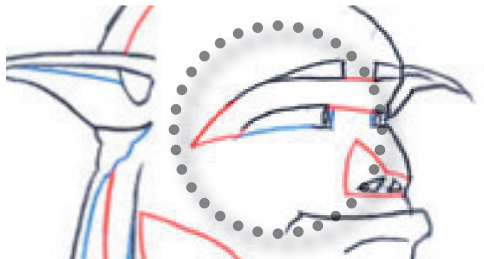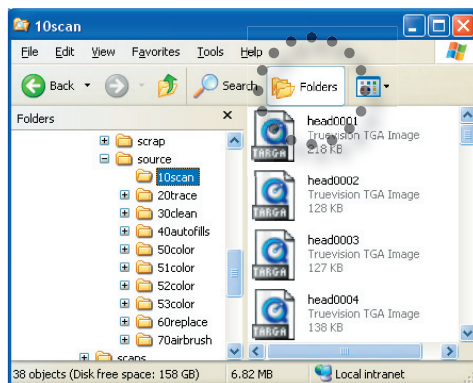
2

Tip: Click on the "Folders" button in the folder window toolbar to show the tree listing like on the left.

Set up your folders

The RETAS! Pro suite (TraceMan, PaintMan, CoreRETAS!) is extremely unforgiving of mistakes. You can easily obliterate a week's worth of work by saving a bunch of irreversible mistakes over your only copy of work.

Before you do anything else, set up folders like these to keep track of your work in progress, so that you always have earlier versions to fall back on when you make a mistake or just want to experiment.

In your U: drive, create a project folder first, and then a "source' folder within your project folder. Create several folders with the same names on the right.

The numbers in the folder names ("10scan...") make it easier to figure out what folders contain what, because they will line up in order.

3
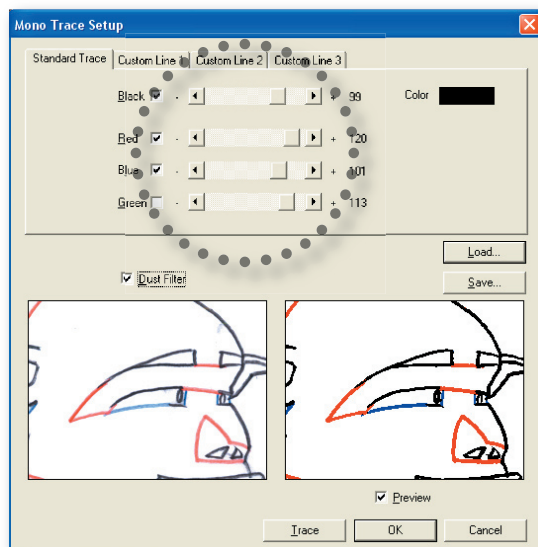
Scan and Mono Trace (TraceMan)

Auto Scan (scan menu) everything into the "10scan" folder that you set up in step 2.

Open your "10scan" folder and drop some files into the TraceMan window to check out the results.

Check **Mono Trace Setup** (trace menu) to see that the Mono Trace operation will pick up all your color pencil lines. Adjust the *color* sliders so that most of the lines are completely closed. Adjust the *black* slider to darken or lighten the lines so that it just looks best to you (you can always close up the open gaps in the black lines with color lines later).

All your black outlines will go to the *Line* layer, and the color pencil outlines will go into the *Color* layer. You'll be able to see this with PaintMan's Line / Paint mode toggle button later.
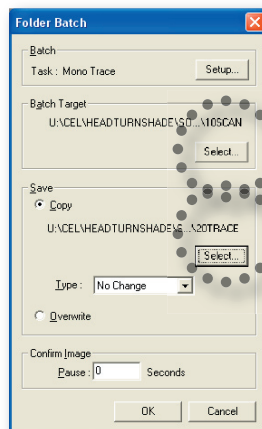
Use the **Custom Line** tabs if you used any color outside of Red Green and Blue, so you can tell it what to look for. Click OK when you're done with this dialog.

Use **Folder Batch** (file menu) to Mono Trace all your scanned results into "20trace."

4
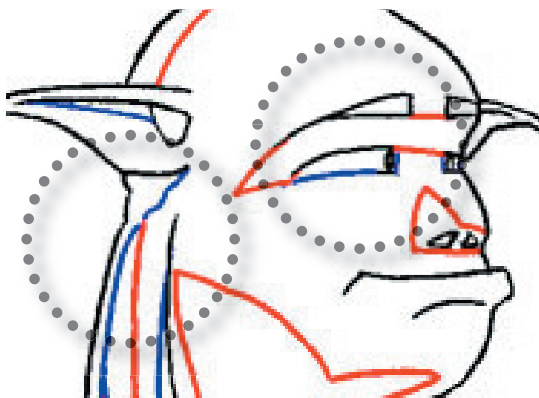
Tip 1: it's a good idea to start learning some basic keyboard shortcuts for PaintMan, since you're going to work with a lot of drawings. The most important ones to start with are: **<** and **>** to move back and forth among frames.

Tip 2: The **Close Fill** ▦ tool allows you to draw a box around a small region and have it fill in many enclosed areas in one step. This tool is great for areas with pencil hatch marks, nostrils, eyebrows, etc, which you will be using more extensively later. For now, don't worry too much about filling in all the white bubbles encased in some of your pencil lines.

Clean up color lines

You will now be closing up your lines, so that filling your color will be a swift and easy process. The effort you put in now will pay off big later!

Open PaintMan, make it show the Paint Palette (F8), the Color Palette (F6), the Color Chart (F7), Batch Palette (F10), and the File Previewer (F12).

To avoid mistakes, *work directly out of the folders you set up*. First open the "20trace" folder. Copy everything into "30clean." Drag the first image from "30clean" into the PaintMan window. You will see in the File Previewer PaintMan recognized the rest of your frames.

Make sure that your character is completely enclosed with color lines or are extending out to the edge of the frame, such as you see here. This way, you can fill in the background in one step. Remember that you will only be using part of the cel in your final output (I cropped in my final reel so that those peg bars aren't showing).

There will be some white gaps in the areas where color lines collide. Take care to close those up using the **Close Fill** ▦ tool and the **Join Line** ✎ tool. To make the Join Line tool jump larger gaps, double click on the Join Line toolbar icon and increase the pixel count in the dialog.

Autofill ⚿ (Batch Palette)

You will be working out of the "40autofill" folder. Copy everything from "30clean" to "40autofill." Drag the first file from the "40autofill" folder into the PaintMan window to load it. The rest of the frames will be visible in the File Previewer.

Tip: You want to avoid accidentally "moving" your files instead of "copying' them—you don't want to end up with the surprise of making some mistakes, and then to find that you don't have a backup set to go back to. The quickest, mistake-free way to copy is to press **Ctrl-A** in the folder window to "select all," **Ctrl-C** to "copy," click on the destination folder and press **Ctrl-V** to "paste." These keys are all next to each other. Do it a couple times and it should become natural to you. If you are undoing your mistakes by copying old stuff over new stuff (as you will be doing many times from this point), check to see that you are copying the correct files to the correct folder and click **Yes to All.** Each time you do this, contemplate writing an angry email to CelSys, the programmers who wrote RETAS! Pro.
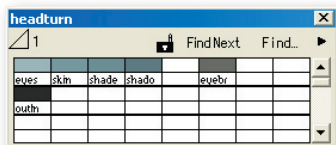
Set up your Color Chart first. Open a file that shows the colors you want to apply on your character, then use the Eyedropper tool to drop colors onto this panel by holding down **Alt** as you click on each slot. You can give your colors 5-character names by double clicking on them, like "skin, shade, shado, hair1, hair2, eyes..."

For the first Autofill, you'll paint in the background magenta (that hideous pink color, but you can substitute any other color you are certain you won't be using in your cels). Later you'll turn this back to white for transparency, but this way you can take any remaining white areas (like those annoying specks trapped in your pencil lines) and do a quick **ColorReplace** on them to a color your audience won't notice,

like your skin color. Otherwise your character will be pockmarked with disturbing transparent freckles later.

Click on the Autofill tool, pick magenta . Click on an area where the background should be (and your character won't). In the **Batch Palette** you should see that there is a checkmark on the first line, the color you chose, and a set of X Y coordinates.

This tells PaintMan that you want to fill magenta in the background area across *all your frames* between "Start" to "End," when you hit **Start Autofill**.

This part is actually cool. You can collect many Autofill settings, save them, and run them again and again. This means you can try an autofill, and when you mess up, you can fix the problem, come back and run it again without missing a beat! Here's what to do:

1. Load from the "40autofill" folder.

2. Highlight a new slot on the AutoFill Batch Palette.

3. Click the Autofill tool.

4. Pick a color.

5. Hold down **>** to sweep quickly through your frames. Hover your mouse pointer where you see that it doesn't get crossed by something else. In my example, I made sure the center of the hourglass was sitting the forehead as he turns his head throughout my frames.


6. Release **>** and click to pick this point.

7. Try it. Click **Start Autofill**. Click OK, and you can watch it fill each frame, and see frames where it bleeds through. Don't panic. Just make note of what frames have colors spilling over.
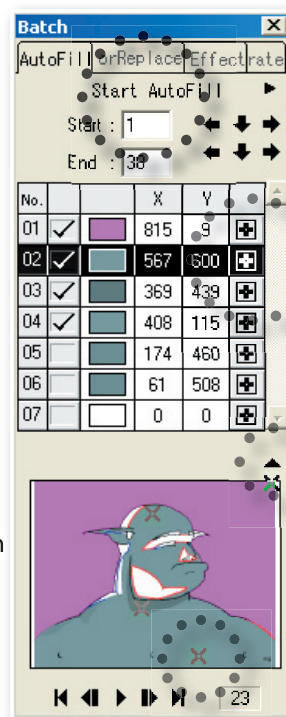
8. Go to your "30clean" folder in your U: drive, drag the first frame you saw messed up into PaintMan, and close up the spots you missed with the **Pencil** ✏ or **Paintbrush** 🖌 tool. Continue with the rest of your frames that have colors bleeding through in the wrong places.

9. Go to your "30clean" folder in your U: drive, copy all your files there back into "40autofill." When it asks you if you want to replace, click **Yes to All.**

10. Go back to step 7. When you're successful, go back to step 2. If there's an autofill you don't want to do, uncheck the line ☑ in the Autofill Batch Palette.

Anytime you don't know what line fills where, click and hold on the cross hair ⊞. The fill point will show up in the main window.

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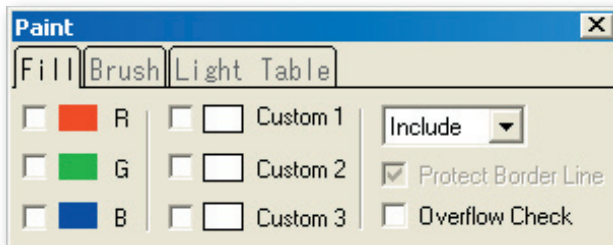
Spot fill large areas (Fill tool ✋)

Copy from "40autofills" to "50color." Drag the first file from the '50color" folder into the PaintMan window.

Now go through each frame and pick out the larger fill areas with the Fill (or Paint Bucket) tool. This is the time to just worry about the big stuff. Don't worry about the smaller areas at this point. If you got teeny white gaps, don't sweat it. We'll take care of them later.

The **Paint Palette** allows you to tell PaintMan to fill over any color you choose. It already has checkmarks for Red Green and Blue (R G B). Each of these checkmarks can be switched on and off using Ctrl-1, 2 and 3.

For instance, if you click on R, when you use the **Fill tool** ✋ and click on your wide areas (like the cheek in this example) PaintMan will fill *over* any red areas adjacent to the area you just clicked.

Once again, you may need to repeatedly return to earlier versions of your work, to close up lines and fix boundaries.

With each step you think you're really satisfied with what you have and don't want to lose it, copy from "50color" to "51color" and so on ("52color," "53color"...).

Work from the new set.

7
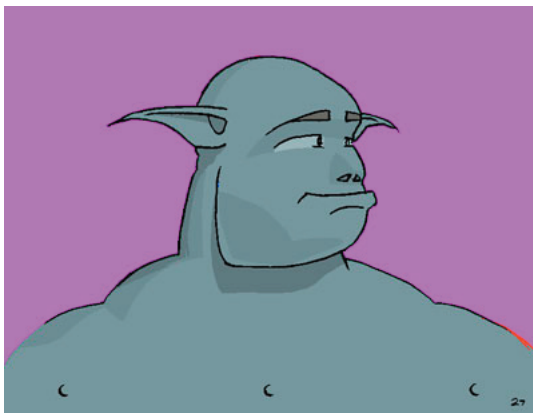
Spot fill small areas (Close Fill tool ▨)

Copy from your last "5Xcolor" (e.g. "55color") folder to the next "5Xcolor" (e.g. "56color") folder. Drag the first file from this new folder into the PaintMan window.

Start filling in the smaller areas. You'll probably find it easier using our trusty **CloseFill** ▨ tool to do this part. You don't have to have a precision aim. Just fill them in with one sweep. CloseFill has two modes: marquee (box) or lasso (trace around).

This may take care of most of your annoying tiny white specks, but of course, we'll take care of all of them later.

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Color Replace (Batch palette)

When satisfied, copy results from your last "5Xcolor" folder into the "60replace" folder. Drag the first file from the "60replace" folder into the PaintMan window.

This is where you're going to finally get rid of the white specks, turn magenta back to white, and clean up any other residue from color lines that might have been missed.
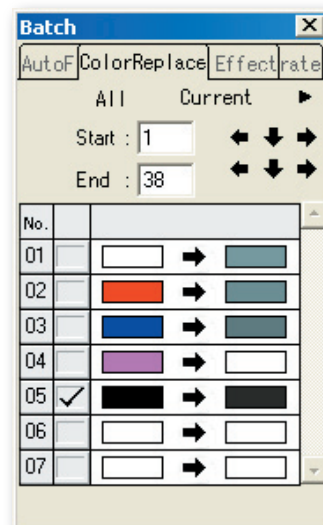
The **ColorReplace Batch Palette** is the second tab next to AutoFill. You can Color-Replace with just the "Current" frame or "All" frames.

ColorReplace is a lot simpler than AutoFill. Pick a color from your **Color Chart**, **Color Palette** or with the **Eyedropper Tool** and drop it into each of the boxes. Hit **All** or **Current** when you're ready to apply the results. Once again, you may have to go back to the last version. Copy them into the "60replace" folder and try again.

Here, you may want to soften your solid black lines for stylistic reasons.

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Airbrush Effect (Batch palette)

If you like the crisp boundaries between your color areas, you can skip this step. If you want softer contours in your shaded areas like you see in the newer Disney movies, you'll laugh at how simple this part can be.

Copy your results from the "60replace" folder to the "70airbrush" folder. Drag the first file from the "70airbrush" folder into the PaintMan window.

The **Airbrush Effect Batch Palette** is in the same place as the AutoFill and ColorReplace palette, in the third tab. It works pretty much like the ColorReplace tab.

Use the eyedropper tool to pick out one color (such as the darker area of the cheek), drop it into the first box, and pick the color next to it (the lighter area of the cheek) and drop it into the second box. In the box on the far right, you can click on it, and enter the spread size in number of pixels.

You're done!

Copy all the results you have in "70airbrush" into one your CoreRETAS layers, and you're ready to composite this together with other characters and your backgrounds.

Have fun storming the castle!