What is Rotoscoping?

Rotoscoping is an animation technique which was used in initial stage ofthe movie industry. It connotes tracing of motion live picture frame by frame for applying in animated films. The animators can get quite realistic actions by tracing actor in the scene.In the initial period, animators used to project movie images of live-action onto glass panel and later traced over images. This projection device is known as a **Rotoscope** which was developed by renowned animator Max Fleischer. It was replaced by the computers eventually, but still the process is called as **Rotoscoping**. In VFX industry, it is a technique of manually creating mask for an element on the live-action plate so it can be compounded over another background.Yetit is still applied on subjects that are not in front of blue or green screen owing to practical or economic reasons.

How Does VFX Rotoscoping Work?

A roto artistmarks out an object by applying set of tools incompositing software to generate new alpha channel for particular part of a video or image in **Roto Studio.** Unlike computer generated imagery which can simply add the alpha channel to its images, footage film taken directly from a camera has got no alpha data. Thus a Roto artist will require to create manually that alpha by tracing elements within video. A Roto artist produces various shapes around an object and later animates those shapes to match movement on every frame.

Depending upon complexity of shot, **Rotoscoping** process can consume hours or even days to finish. The application of green or blue screen can make procedure of compositing different elements into single scene easier, but every shot cannot take benefit of green or blue screen. Hence it still has significant role in the production of the visual effects.

What is Rotoscoping in visual effects industry?

In visual effect industry, **Rotoscoping** process has slightly different purpose and is used to create a mask or matte for an element. Hence it is extracted out to a place on different background and masked out so that colors can be changed.It provides opportunities to film makers in producing scenes that will otherwise be difficult, dangerous, impossible or costly to film. **Rotoscoping India** is one of the fastest growing industry in our country because in spite of multiple changes in VFX technology, conventional roto techniques are still in use.

Rotoscopy Present and the Future

Rotoscopy has now become a creative animation and visual effect technique in its own ambit. The meaning of Software programs here

is that there are new ways to carry out whole roto procedure without using physical film. Therefore it is less time consuming and animators can work in various layers using one layer as the digitized image. The evolution of more powerful computers as well as more complex software applications stands for required effects can be achieved with lesser effort. However, **Rotoscopy** techniques still require skilled artists to make sure that everything is working superb. Roto artists need to take immense amounts of training as well as discipline to bring magic to screens.

Why to choose our Rotoscoping services?

Although there are lots of firms in this industry to produce required animation films, but our Roto studio is quite unique in **Rotoscoping India**. The clients candispel their worries while choosing our services because of the following reasons:

- We have a team of professionals who have long workingexperience inthe VFX industry.
- Our team is committed to providing global standard services.
- We offer the best services both in technology as well as talent in our **Roto studio.**
- We are providing high quality camera, VFX & stereo roto, removal of green screen, extractions of matte, stereo paint, removal of wire, touch up, scratch and dust removal services.
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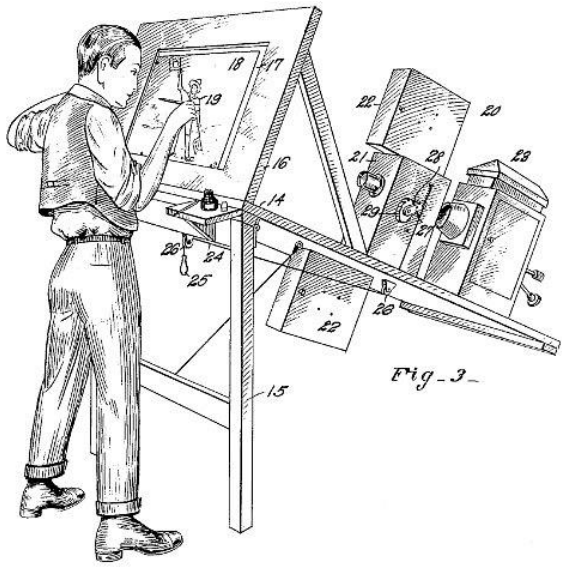
Rotoscoping explained.

Rotoscope animation describes the process of creating animated sequences by tracing over live-action footage frame by frame. Though it can be time consuming, rotoscoping allows animators to create life-like characters who move just like people in the real world.

The technique of rotoscoping also made the lightsaber possible. To create these visual effects in the original Star Wars films, animators drew the colour and glow of each lightsaber over the sticks the actors held on every frame in which they appeared.

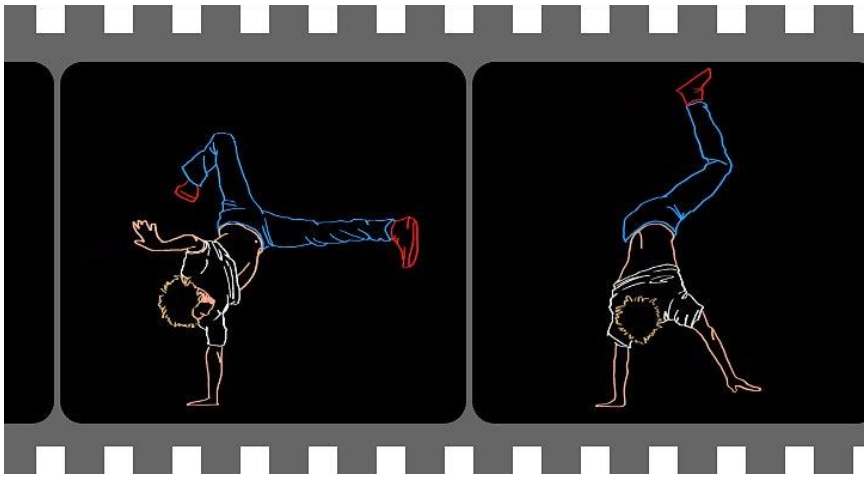


Patent by Max Fleischer, artist unknown

Grounding animation in the real world.

In 1915, animator Max Fleischer patented the first rotoscope. Projecting live-action film of a clown (his brother Dave in costume) onto a glass panel, Fleischer then traced the figure frame by frame on paper in order to create more life-like animation. Using this animation technique, Fleischer created the short film series Out of the Inkwell and made his brother's clown character (Koko the Clown) famous. Fleischer would go on to create other classic animated characters like Popeye and Betty Boop. He used rotoscoping to make their dance moves look like those of professional dancers. He also used rotoscoping to achieve surprising realism in the first Superman animated series.

After Fleischer's patent expired, Walt Disney used his rotoscoping technique. Actors performed scenes and, from that footage, their movements were rotoscoped to use as reference material for many films, starting with Snow White and the Seven Dwarves.



Taking rotoscope animation digital.

In 1997, programmer and art director Bob Sabiston developed Rotoshop animation software to create short films for an MTV contest. He made several shorts before working with Richard Linklater on the rotoscoped animated features Waking Life and A Scanner Darkly. Sabiston's method, interpolated rotoscope, saves animators time and effort by using vector keyframes. These are frames the software builds to make one image morph into another in a certain number of frames.

Now rotoscoping is used for everything from creating fully animated versions of video footage to placing mattes over videos to transform live actors into fantasy creatures or younger versions of themselves. One filmmaker has even made fish appear to swim through the air.

Start rotoscoping with Adobe Animate.

You can try to create animation with the rotoscope method in Animate. Before you begin, watch the footage all the way through and think about how you'll animate it. Like other forms of frame-by-frame animation, rotoscoping even a few seconds is a time-consuming process and requires a lot of patience. "A five-second clip could take five to ten hours," animator Mikey Glovart says. "But that's kind of why it's so satisfying

when it's done." Watching your characters come to life, even for a few seconds, will make you want to keep at it.

First steps.

Create a new document and set your frame rate. HD video typically runs at 24 or 30 frames per second (fps). For the smoothest motion, create your animation with the same frame rate as your reference video. Also, make sure your new document has the same proportions as your reference video, so they're easy to line up.

Set up your animation.

Once you've imported your video, set it to play once instead of on a loop. Increase the brightness to make it easier to see the lines you draw over the video frame. Then, create a new layer and choose your keyframes. These are the frames that show changes in the position of your figure (or symbol) or introduce a new element. Go frame by frame and outline the figure in each frame.

Don't forget to save frequently as you go and make sure that you stay organised. "If you're not titling each layer correctly, it can just turn into a big mess," warns Glovart. Label every layer clearly to save time and frustration later on.

Drawing tips.

Break your figure down into shapes so you don't have to redraw your entire subject in every frame: an arm, a lower leg and foot etc. Then, instead of drawing that shape in every frame, copy it, adjust its placement on the stage and move its points if you need to. Also, if you create a pant leg and shoe in the same layer for every frame, for example, you can fill it in with colour once. You don't have to recolor it throughout the animation. If you change your mind on the colour, you don't have to change it in each individual frame.

Shape tween for speed.

To speed things up a bit, like Bob Sabiston did in his Linklater films, try shape tweening or drawing a vector shape in one frame that you can then change or replace at another specific frame. Animate will insert the intermediate shapes for the frames in between to create the animation of one shape morphing into another.

With these tools, you can completely transform a live-action video into an animation or animate particular elements on top of live-action footage. Just remember to keep things simple in the beginning. With time, patience and a lot of tracing, you can bring your pen or brushstrokes to life.

Using Roto / Rotopaint

Natron features a vector-based RotoPaint node for help with tasks like rotoscoping, rig removal, garbage matting, and dustbusting. You can draw Bezier and B-Spline shapes with individual and layer group attributes, including per-point and global feather, motion blur, blending modes and individual or hierarchical 2D transformations.

Roto or RotoPaint?

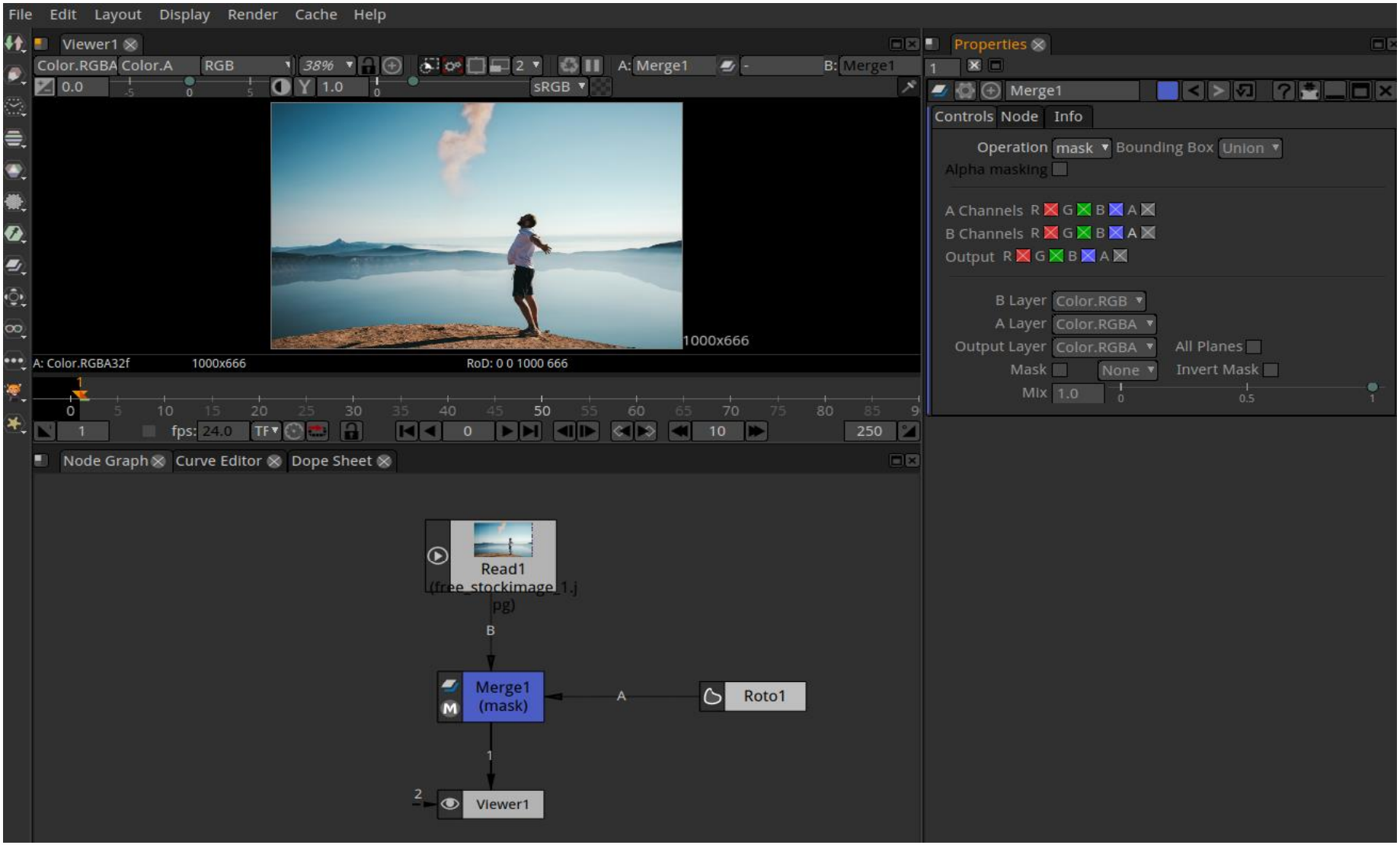
There are two similar nodes in Natron for rotoscoping, Roto and RotoPaint. The main difference between these two is that you can only create and edit Bezier and B-spline shapes with Roto, while RotoPaint allows you to draw paint strokes too with various brushes. So the Roto node is an optimal choice if you're doing rotoscoping only, whereas RotoPaint gives you a broader scale of tools to use.

All tools and controls in the Roto node work the same way as they do in RotoPaint node.

Roto (Mask)

You can use Roto for masking things, similar to mask tools on other known VFX software. In the following example we will mask the person in the picture:

1. Insert a Merge node.
2. Insert a Roto node.
3. Plug the B pipe of the Merge node to the footage.
4. Plug the A pipe into Roto node.
5. Double click the Merge node, in the Poperties panel under Operation select: mask and make sure that all A Channels are ticked (This is the first thing to double check if the result is not as expected!).
6. Double click Roto node and in the Viewer's left side apears a menu, select Bezier tool.
7. Draw your Bezier directly in the viewer. While holding the mouse it draws curved points, when just clicking it draws edges. Try it yourself to get the feeling.
8. Close your Bezier with hitting Enter or clicking the first point drawn: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Layout
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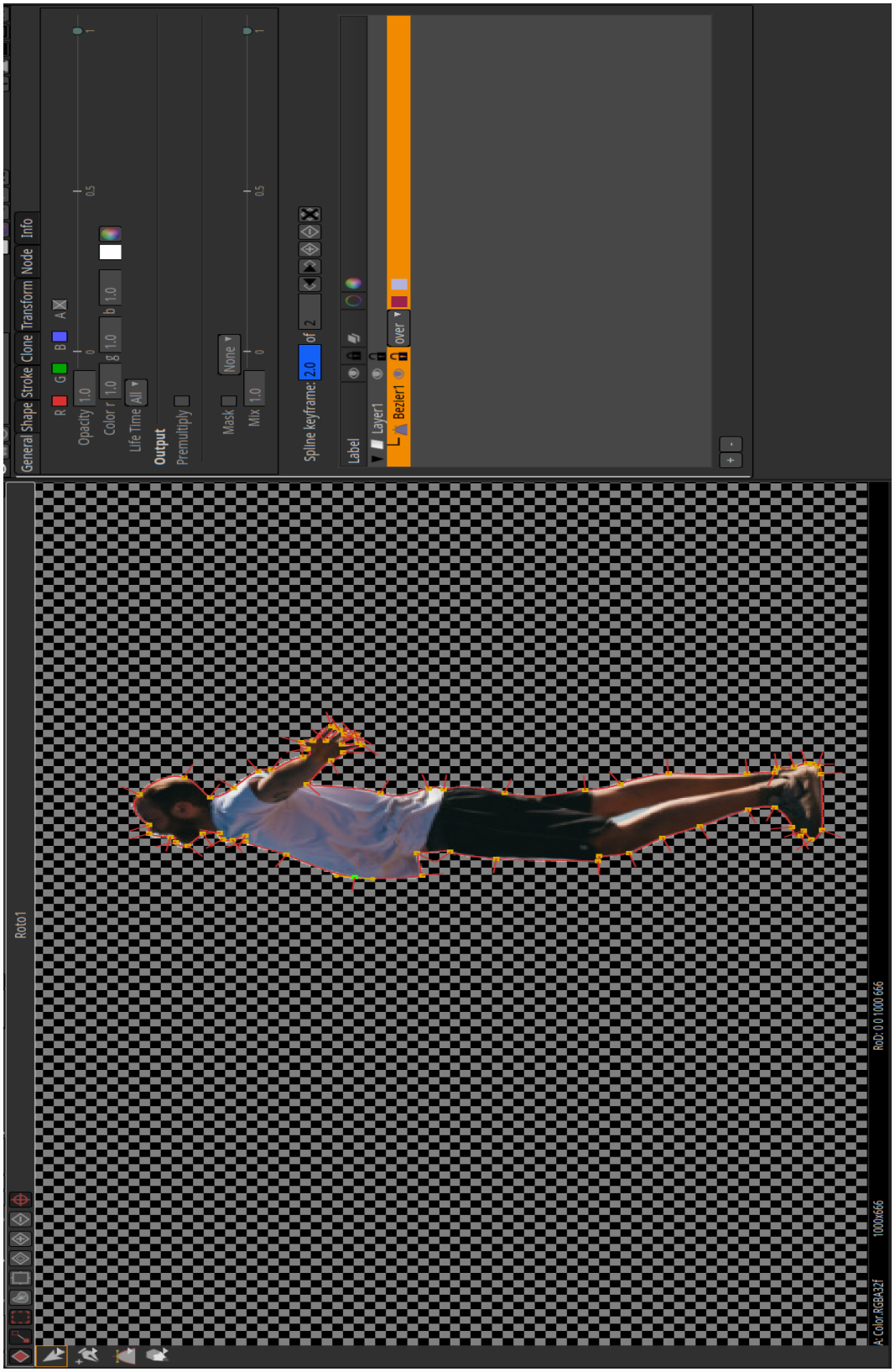


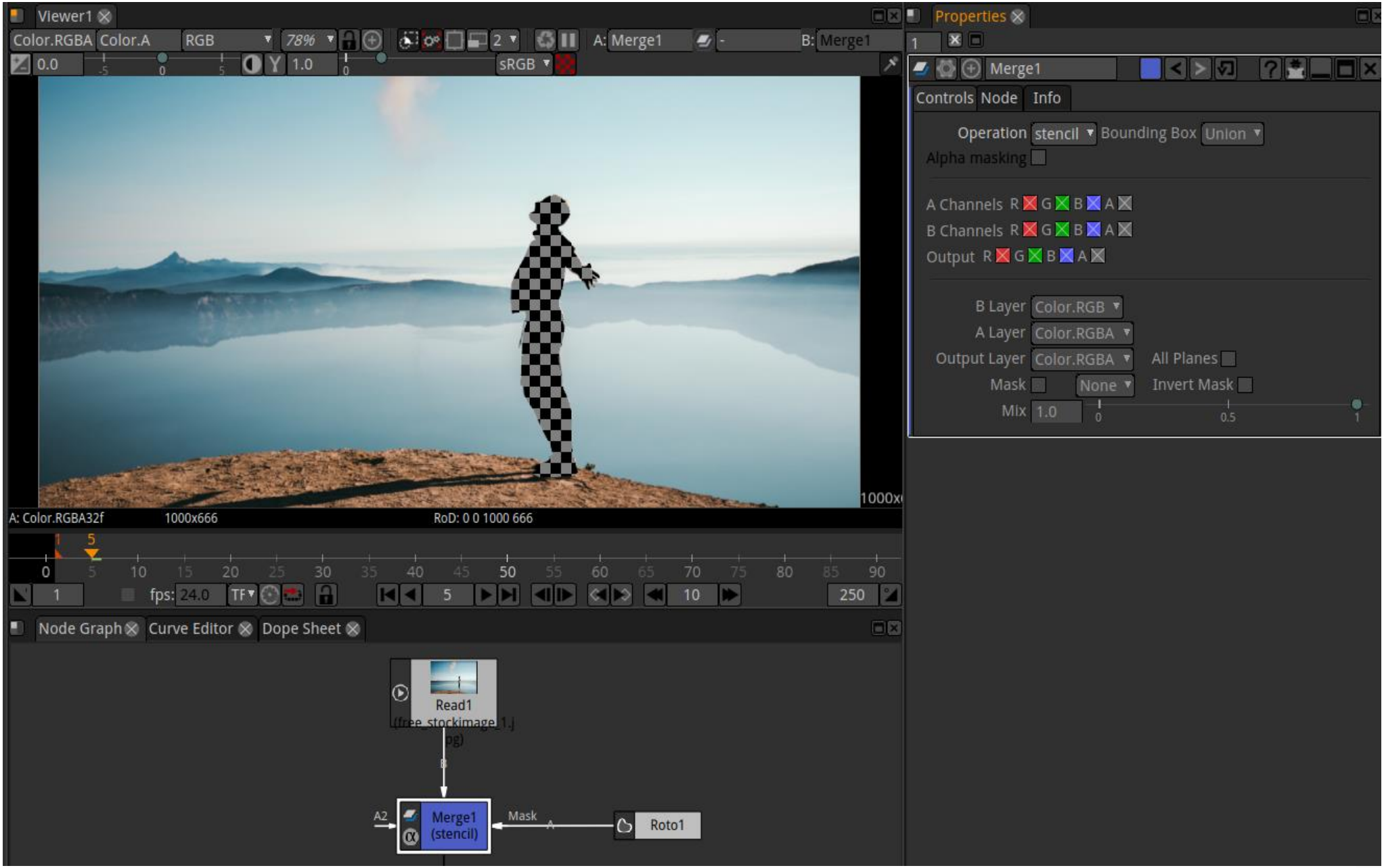
9. To feather some parts, you can drag the red handle lines. To feather everything just add a Blur node between Roto and Merge.

10. To animate the mask, just move the curser in the Timeline, then move your mask, it will Keyframe automatically.

Roto (Stencil)

If you want to invert the mask:

1. Change the Operation in Merge node to: Stencil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Operation
stencil
Bounding Box
Union
Alpha masking
A Channels
B Channels
Output
B Layer
Color.RGB
A Layer
Color.RGBA
Output Layer
Color.RGBA
All Planes
Mask
None
Invert Mask
Mix
1.0
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Curve Editor
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Read1
A2
Merge1
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Mask
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RotoPaint (Paint)

The RotoPaint node gives you a broader scale of tools to use than Roto, though many of the controls are shared across both nodes. As with the Roto node, you should use the Viewer tools to create shapes and paint strokes, and then edit them using the control panel.

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