# Convert Bitmaps to Vectors with AI

Corel PowerTRACE™ allows you to convert bitmap images, such as JPEGs, into vector images. And with the new **Adjustments** tab in CorelDRAW 2020, JPEG artifact removal and upsampling are built into the process to help improve the quality of the source bitmap as you trace it.

In the first example, we'll create a vector image from this low-resolution photo of a frog, which has JPEG artifacts in the background and along the edges, as a result of dithering or JPEG compression.

With the image selected, go to **Trace Bitmap** > **Outline Trace** and select an image type. In this example we are using **High Quality Image**.
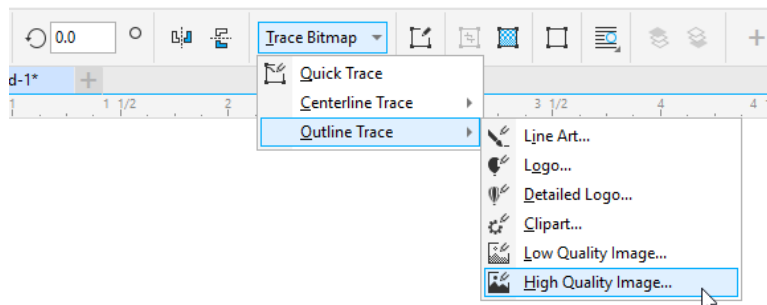

This will open the PowerTRACE window. In addition to the new **Adjustments** tab on the right, you will also see the estimated tracing time in the bottom right corner and a progress indicator under the preview window.
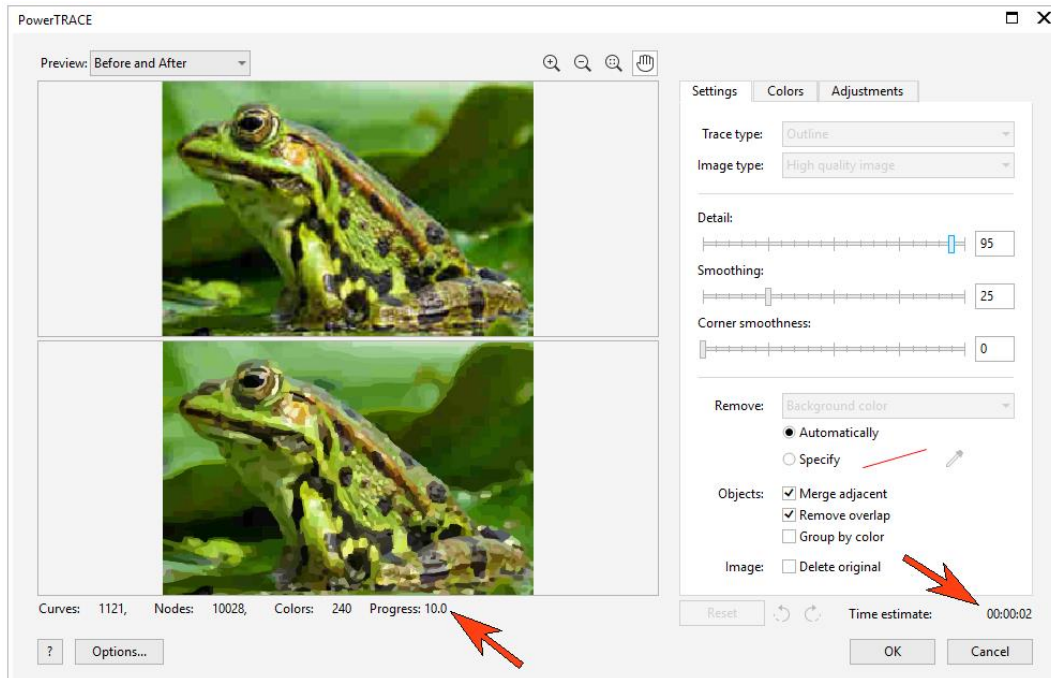
TIP: you can maximize the PowerTRACE window and zoom in on your image to better view the before and after results.

In this example, we can clearly see the artifacts in the background in trace results.
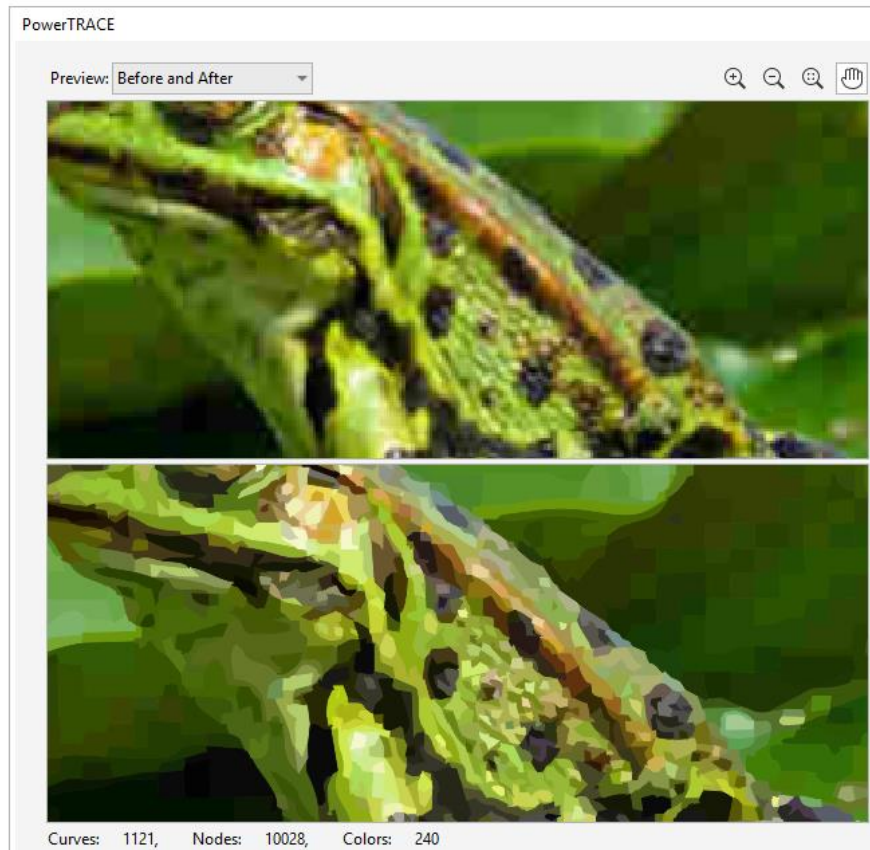
If we were to click **OK** without using the controls on the new **Adjustments** tab, this would be the result:

But let's look at how the trace results can be improved with the **Adjustments** tab. We'll first check **Remove JPEG Artifacts** and immediately the curves of the background are much smoother than before.
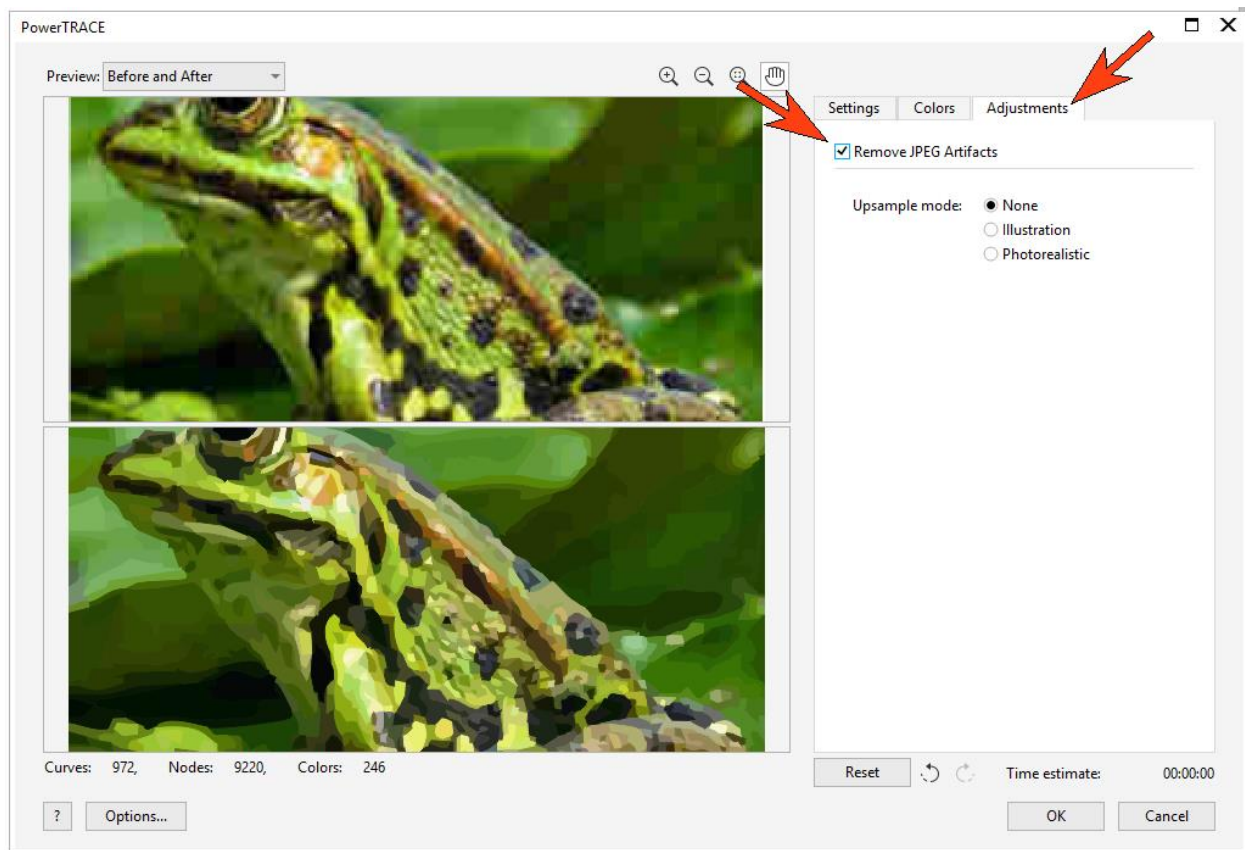
The next step is to choose an **Upsample mode**: None, Illustration or Photorealistic. For this image we will use **Photorealistic**, but you can try the different modes on your own image to see which results are more suitable.
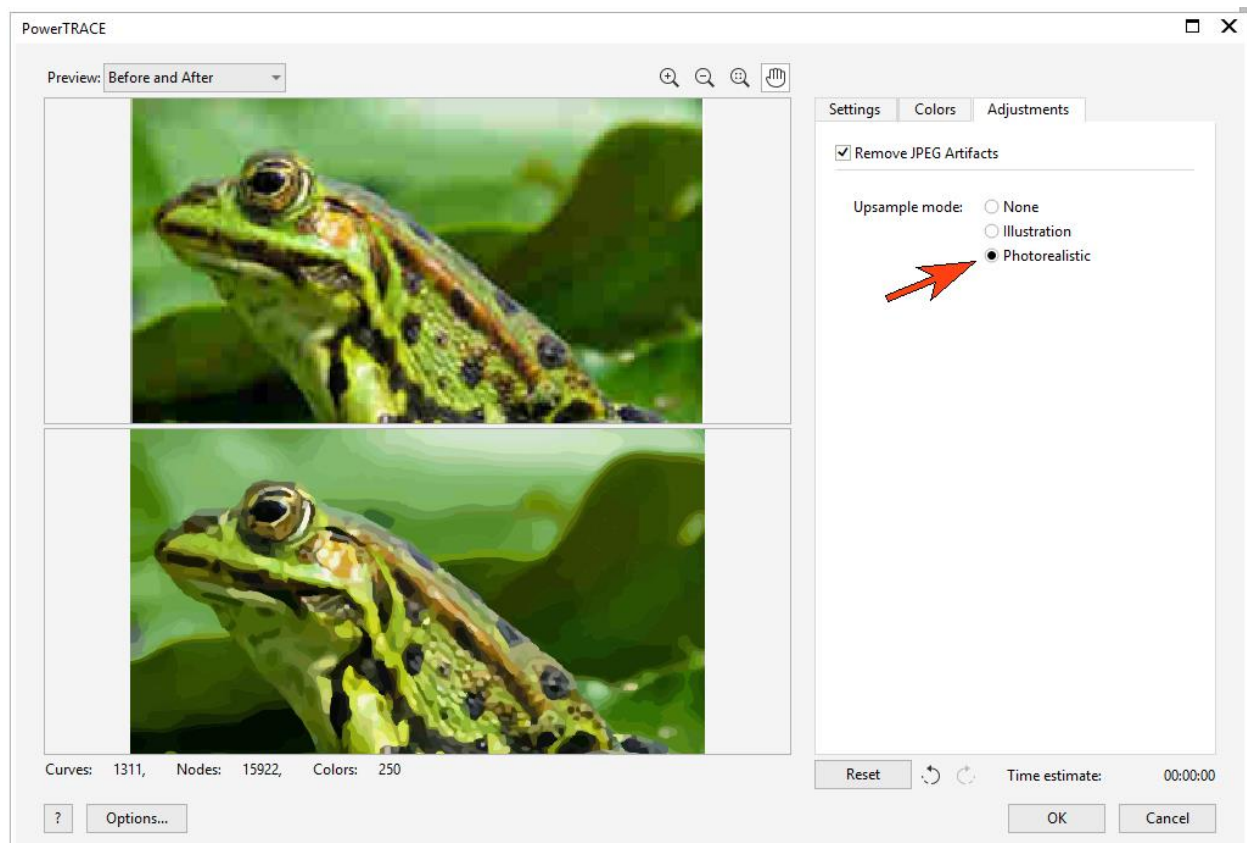

Now when we click **OK** to complete the trace process, the differences are clear, particularly throughout the background and along edges of the frog.

Now that our frog photo has been converted to a vector image, we can easily make changes or add effects. For example, we can change the color scheme:

- Open the **Color Styles** docker (**Window** > **Dockers** > **Color Styles**).

- Select the vector trace results and drag over onto the **Color Styles** docker. This will create a color style based on the colors in your image.

- Click one of the color swatches in the style to open the **Harmony Editor**.

- Drag any of the nodes around on the color wheel to create a new color harmony for your image.
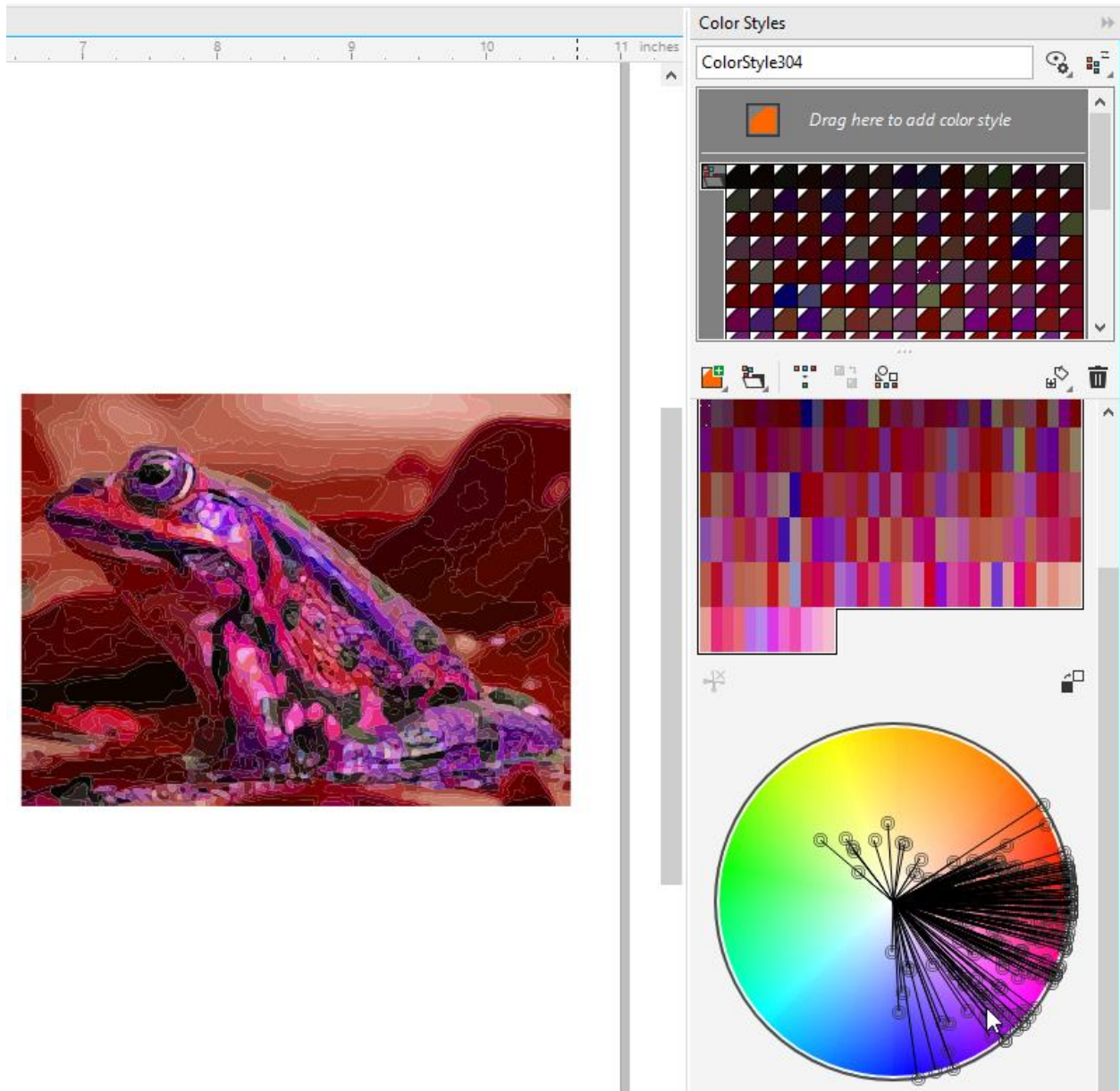
The new **Adjustment** options also work nicely for bitmap versions of digitally-created images, such as this lotus flower image.


With the image selected, we choose **Trace Bitmap** > **Outline Trace** > **High Quality Image**. If we were to click **OK** without using the controls on the new **Adjustments** tab, this would be the result:
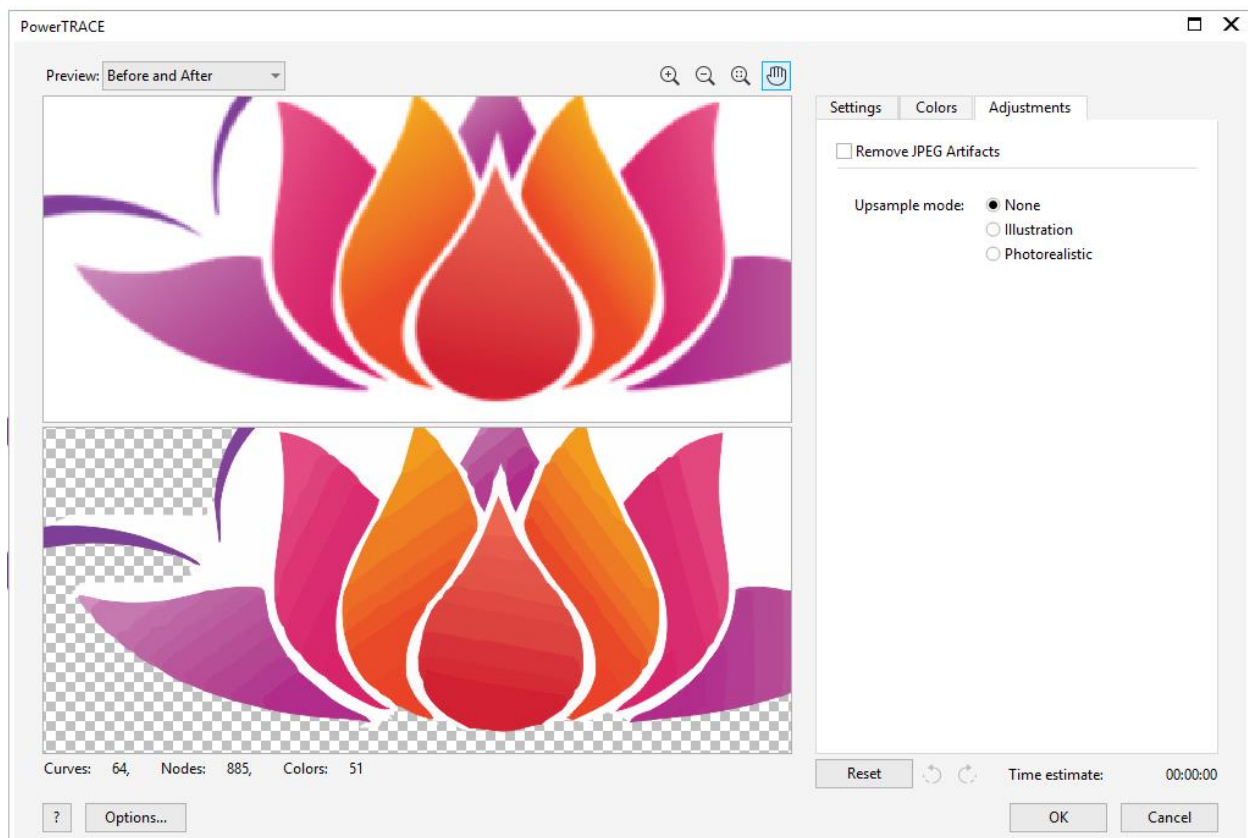
And this would be the result when we use the **Illustration** upsampling mode on the **Adjustments** tab, with much smoother edges:
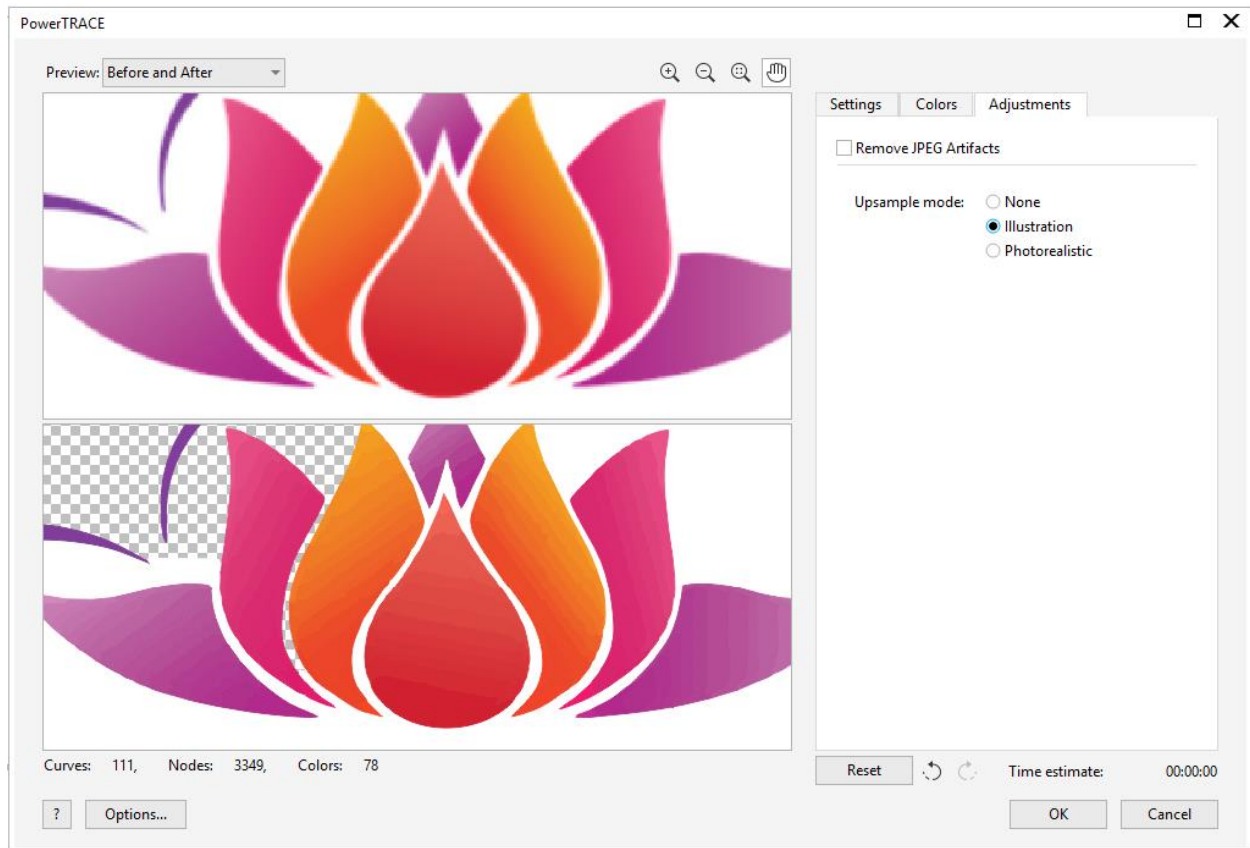
There is still some white background remaining, so click on the **Colors** tab and use the eyedropper to pick up the white pixels.
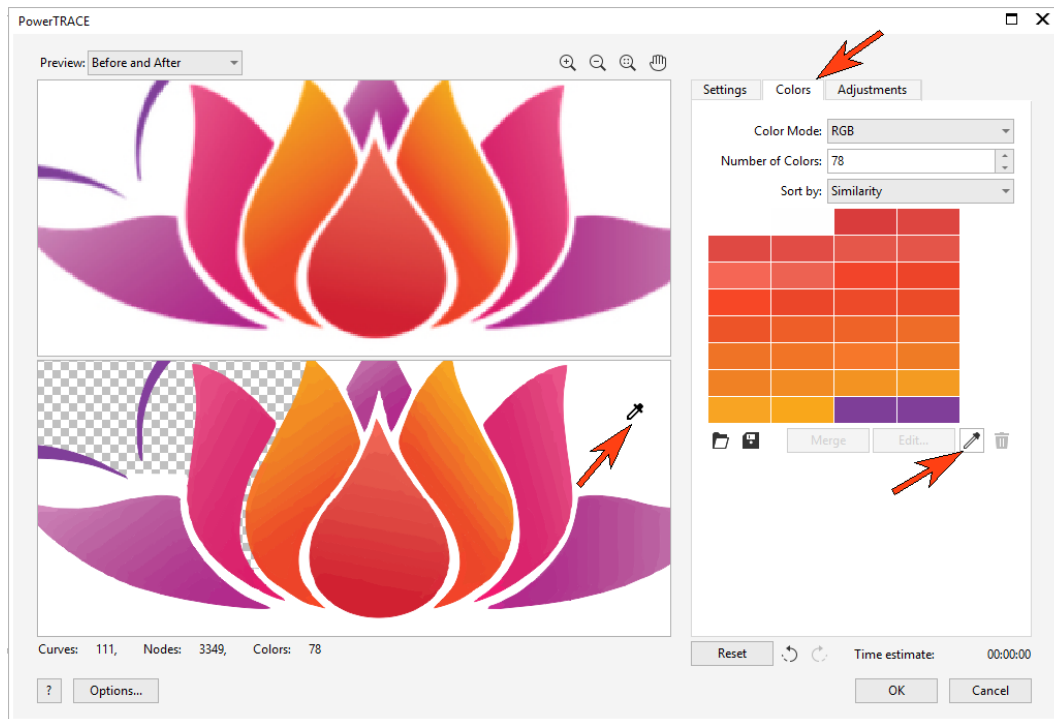
Then click the **Delete** (trash can) icon to remove these pixels and complete the trace process.