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Monday, 21 October 2019

Review: Topaz Labs JPEG to RAW AI

Written and illustrated by Ctein

The last of my Topaz Labs reviews concerns a nifty little program with the intriguing title of "JPEG to RAW AI." It is, as they say, a one trick pony, and the trick is in the title. Hand it a JPEG of your choice and it will generate a RAW file (or 16-bit TIFF, if that is your preference).

If you have no interest whatsoever in working with JPEGs, you can skip out on this column and go do something more productive with your time. No worries, it won't be on the final exam. I'll wait...

dum ta dum ta dum hummm...

Okay, the class is a lot smaller; you can all move in closer so I don't have to shout.

So...why would Ctein, the Guy Who Does Everything in RAW, even care about a program like this? One reason is that sometimes it's not my call. Remember that two of the pillars that make CteinCo the multinational powerhouse that it is are custom printing and photo restoration. Sometimes the best file that a client can provide is a JPEG. Sometimes it's a really crappy JPEG and what they want to know is whether I can turn it into a semi-decent photograph.

Another reason is that, umm, "stuff" happens. As in, my camera had a bad hiccup (or I did something dumb—take your pick), reset itself to all its defaults, and I didn't realize I was photographing in JPEG instead of RAW mode.

Also, I know that some of you prefer to photograph in JPEG mode (I don't judge). That's just fine, until you want to manipulate some photo in a way that pushes it outside of its comfort zone. Like, say, punching up a dusky and hazy blue sky and all of a sudden the contouring that wasn't visible in the original high quality JPEG becomes unacceptable banding. Because, eight bits! The dreaded picket-fence histogram. Simply switching the image mode from 8-bit to 16-bit doesn't get you out of that one, because the contouring is baked into the image.

It is true that you can't get something for nothing, but a JPEG isn't nothing, it's just a badly mangled something. Like the aforementioned hazy sky. You know it's not supposed to be contoured, it's supposed to be smooth. That's just common sense. Enter Artificial Common Sense—train a deep-learning network to recognize what the mangling looked like and undo as much of it as possible. Build the rules it invents into a standalone program, and you have JPEG to RAW AI.

It cannot work big miracles. It cannot take a truly crappy JPEG and turn it into a fabulous photograph. But it can work many small miracles and that can be the difference between intolerable and tolerable image quality. Consider this:



(Click to enlarge)

I created this JPEG for illustration purposes from [one of my original photographs](#). I compressed it at Photoshop's lowest quality JPEG setting so that the artifacts would be really obvious even after TOP's TypePad interface gets done with it (fingers firmly crossed).

I handed that JPEG off to JPEG to RAW AI and let it massage it at its automatic settings (there are sliders to manually change the degree of artifact removal and sharpening). In a couple of seconds I had this:



'Nuff said?

Understand that this is an extreme case. I wanted something that would come through clearly when published here. Most of the time the results will be a lot less dramatic. But—most of the time—they'll be visibly better than the original JPEG you ran through JPEG to RAW AI.

Unlike the previously reviewed GigaPixel AI and Sharpen AI, JPEG to RAW AI is not a monstrous resource hog. You should pay attention to the system requirements Topaz Labs puts forth, but I think it will run acceptably on most any system, as you can set processing preferences. You can have it run as a background task, control the amount of graphic memory consumption and even turn off GPU utilization entirely. It won't be fast, but it should do the job.

As is usual for Topaz Labs, JPEG to RAW AI has a [30-day fully-functional free trial](#). You don't have to spend \$99.99 to find out if this particular pony is worth it to you.

Next? As a prelude to the big [Black Friday Dye Transfer Sale](#), I'll be writing several columns talking about dye transfer—how it worked, what it meant to me and other photographers and printers, and our perpetual jousting with Eastman Kodak. Indeed, there was jousting, almost from Day One (my Day One, that is). On yeah, dirt will be dishd. Stay tuned.

Ctein

Ctein, pronounced "kub-TINE," rhymes with fine, is one of the most experienced and accomplished photo-writers alive. He was TOP's Technical Editor before leaving for a new career as a science fiction novelist. He has written two books of photo-tech, Digital Restoration from Start to Finish and Post-Exposure. This is his 345th column for TOP; older columns can be found under the "Ctein" Category in the right-hand sidebar.

(To see all the comments, click on the "Comments" link below.)

Featured Comments from:

parkylondon: "Many thanks for this series Ctein. They've been very useful and have helped me fine tune my Topaz AI collection. I remember, fondly, our afternoon in The Photographers Gallery in London and look forward to meeting you again one day. Thanks."

Posted on Monday, 21 October 2019 at 01:52 PM in [Ctein, Software](#) | [Permalink](#)

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Comments

Accidentally shot JPG? Yup.

Posted by: [Scott](#) | Monday, 21 October 2019 at 09:16 PM

I'm delighted to see Ctein back at TOP.

Posted by: [Joe Kasli](#) | Monday, 21 October 2019 at 04:27 PM

Mike, it is great to once again read an article by Ctein on The Online Photographer. I hope to see much more from him in the future, his worldview and technical prowess fits in well with all the things you do here.

Meanwhile, I've been getting behind on JPEGs and such because I've been doing film photography for a bit. Guess it is too much to ask for, but the new black and white fine grained 400-speed film from Bergger, Pancro 400, has much to commend it, including its dual emulsion that unites silver bromide and silver iodide; wasn't silver iodide what made daguerreotypes work? Interesting, and as the B&H newsletter has it, this is a serious film.

Anyhow, someone like Mr. Ctein could go to town on the promise of new R&D for film photography creating a new era of photography for those willing to go back to the future. Let's see, develop safer chemistry to work with, more computer-savvy, thoroughly artful enlargers (logical given that digital will likely control bread and butter photography going forward, while film could capture many art photographers given half a chance), a range of mind-boggling, modern new high quality film cameras and film types (potentially), what else do we need to help new-era film people succeed? To get the right answers, we need to ask the right questions.

Thanks,

Jeff Clevenger

Ann Arbor, Michigan

Posted by: [Jeff Clevenger](#) | Tuesday, 22 October 2019 at 06:48 AM

Left- field question... Does anyone think that phone-taken .jpg images would be much improved by this jpg-to-raw process? JPGs from phones "may" be handled just like JPGs from cameras, but perhaps there are differences?

Posted by: [Michael Lougee](#) | Tuesday, 22 October 2019 at 09:38 AM

Dear Michael,

The better the JPEG's are to begin with, the less improvement you are going to see in the conversion. For JPEG's that don't show any obvious artifacting, you are not likely to see any. On the other hand, if you're talking about significantly altering the tonal distribution or color balance with curves or dodging/burning-in, etc. The conversion will be a big help because it will let you avoid banding issues from "picket fence" histograms.

~~~~~

Dear Jeff,

I'm not entirely certain how to interpret your question/request, but in any case I'm not the person to come to. If you're only asking for my opinions on the subject, they would not be informed opinions. I'm not paying much attention to what happens in that area and I no longer have the inside contacts with the companies to acquire information. There are other people out there who would be far more expert than I.

If you're asking me to actually do research and investigate, the plain and simple answer is that that doesn't interest me. Translation: you can't afford me. Even back in the heydays of the magazines, I rarely wrote about or researched subjects that didn't interest me, as Mike can attest. I never even read Photo Techniques before Mike took over, back when it was nicknamed "the magazine of applied densitometry."

- pax \ Ctein

[ Please excuse any word-salad. Dragon Dictate in training! ]

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-- Ctein's Online Gallery. <http://ctein.com>

-- Digital Restorations. <http://photo-repair.com>

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Posted by: Ctein | Tuesday, 22 October 2019 at 04:08 PM

"Hand it a JPEG of your choice and it will generate a RAW file"

Would that be a Remedial Action Workplan file, a Real Action Wrestling file, or perhaps a Ripe Analogue Waveform file...?

Posted by: [Peter Boughton](#) | Tuesday, 22 October 2019 at 05:17 PM

Does this software do anything different than opening a .jpg in ACR and adjusting it there?

Posted by: [Dave Richardson](#) | Wednesday, 23 October 2019 at 10:39 AM

How would it work with old scanned jpgs? or is only for native digital files? Interesting. Many thanks.

Posted by: [Herman Zentgraf](#) | Wednesday, 23 October 2019 at 08:23 PM

Dear band,

If you still can't see any difference when you click through to the full size illustrations, then it's a problem with either your monitor, your browser, or your eyes. I'm afraid I can't help you with any of those. You'll need a hardware, software, or medical specialist.

~~~~~

Dear Dave,

ACR is an adjustment program — it doesn't create RAW. Running a JPEG through it isn't going to fix any of the JPEG problems I described.

~~~~~

Dear Hernan,

Yes, it works fine with any kind of JPEG, no matter the source.

- pax \ Ctein

[ Please excuse any word-salad. Dragon Dictate in training! ]

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-- Ctein's Online Gallery. <http://ctein.com>

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Posted by: Ctein | Thursday, 24 October 2019 at 01:51 PM

The comments to this entry are closed.

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