

The Digital Corner

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Lightjet Printing

To really experience the beauty of a digital photo it has to be printed. Inkjet printers reach today a level of quality which was not even thought to be possible about ten years ago. But still classic prints on photographic paper can make a digital photo just look like a "real" photo. While Inkjets create colors through dithering photographic paper show continuous tone.



Through an article by Galen Rowell [The World's Best Prints](#) I got the first time aware of the Lightjet printing and a lab [Calypso](#) in Santa Clara which was referenced in Galen's writing. It was interesting that this was a printing process which starts from digital files (mostly from scanned slides).

First I used Calypso as a first class lab to process our E-6 slides. At my visits I could see all these wonderful prints in Calypso's lobby. Among them prints from Frans Lanting and Charles Cramer. Also later I enjoyed the gallery of Galen Rowell where most prints on display were Lightjets. So I was very certain that not the Lightjet printing process would be the limitation but it might be our own D1 photos.

Calypso has different pricing whether you have to scan, color manage and resize the photo or the customer delivers a "ready for print" file (Calypso has the guidelines and profile necessary online [here](#)). I always prefer to have as much control myself especially if it also saves money. So only the second option could be our choice and is highly recommended.

We made 3 test prints in 16x20" (matte, glossy is more critical to cracks or finger prints). The results were very impressive. If you have your monitor correctly calibrated the colors are just what you expected.

Here is what we did to deliver the ready files to Calypso (can be also found in their clear guidelines):

- Resize the image @200DPI to a size that fits inside 16x20" and still allows a white border. Resizing was done using Genuine Fractals. (The Lightjet engine will further resample the file to the printers final 304.8DPI)
- Sharpen the resized image with Nik Sharpener (best using the color laser filter)
- Extend the canvas to exactly 16x20"
- Create a cropping border of 4 pixels wide framing the white border (not the photo). Here is the process in PS6.0: "Select All" (CTRL-A), Select-> Modify->Border and fill with black.
- Apply "profile-to-profile" (different in PS 5.5 and PS 6.0) with the correct profile from Calypso (for the surface you plan to print on, in our case matte)
- Save the file as an uncompressed 8bit TIFF
- Create a CD with the final files

Final Observations

Especially the colors look very natural (neither overly vivid nor dull). To fine tune sharpening we might need some more tests. Please understand that the results were just great but if you inspect the image in all detail you might find artifacts from the GF resizing and also from sharpening with Nik Sharpener. Lightjet prints on Fuji Crystal Archive paper should last about 60 years and are accepted by galleries and museums.

Needless to say that printing at Calypso on the Lightjet is highly recommended.

About the images...

- Birds in formation - To reproduce this smooth grey transition of the fog is very difficult for any printer. The Lightjet with it's continuous tone did a wonderful job. D1, Nikon AF-S 80-200 + TC-20E @ ISO 400 handheld, NEF raw format.
- This photo came out very natural and gave the impression of much more details than it really holds. The Nikon 50mm f/1.4 is also a very good lens and get the most out of the D1. D1, 50mm f/1.4, tripod, NEF raw format.

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Comments on this column? Send them to the [editor](#).



Uwe Steinmueller (born 1947) started his photography with his wife Bettina in Germany 1973. Uwe and Bettina use a joint copyright for all photos, as they often do not even know or care who took the photograph. Their first joint exhibition took place in Bremen, Germany in 1978.

The Steinmuellers moved to California in 1997 and have been working seriously with digital photography since 1999. The Nikon D1/D1x/Kodak 760 are their digital cameras of choice today. Uwe is the editor of [Digital Outback Photo](#), a web magazine dedicated to high quality outdoor photography using state-of-the-art digital SLRs. Other web sites include [photodotcom.com](#) and [californiaplaces.com](#).

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