Peninsula Golf 2 – watercolor painting by Jim Hull

DAVID SAFFIR
IMAGING | PRINTING

# Professional photographer enters fine-art reproduction market using HP Artist Solution for Nikon

HP and Nikon customer case study: David Saffir

Industry: Fine-art reproduction

Professional photographer David Saffir not only produces top-quality, original digital prints of his own photographs, he is also taking advantage of his HP Designjet Z3200 Photo Printer to expand his business into a new market: that of the digital reproduction of paintings for fine artists. Saffir produces the fine-art prints and sells them to the artists as final products, which they in turn sell to their customers. One of his clients is artist Jim Hull, whose timeless watercolors include the themes of golf courses, landscapes, space, and cities and are faithfully reproduced by Saffir in limited editions. The consistent colors and image quality achieved using the HP Designjet Z3200 provide Hull with a more efficient business model: traditionally artists have had to pay high prices for large print-runs of their work to ensure consistent color reproduction; now Hull initially orders just two copies, one for himself and one for sale, so there is no high investment up front. As customer orders come in, he instructs Saffir to print off further reproductions to meet real-time demand, until the limit of the edition has been reached.

Facilitating Saffir's expansion into this market is his use of the HP Artist Solution for Nikon, an end-to-end workflow solution that takes in the photographer's Nikon D3 camera with Nikkor 105-mm macro lens, the HP Designjet Z3200 Photo Printer, and processing software embedded in his ErgoSoft StudioPrint RIP (DFA edition powered by HP Artist Software). Thanks to the close collaboration of HP and Nikon, HP Artist Software technology has been optimized for the Nikon D3 and D3X cameras and integrated by ErgoSoft in the special-edition RIP. It combines with the automated calibration and media profiling features of the HP Designjet Z3200 to ensure high-quality, accurate reproductions.

**The old, time-consuming workflow**

Before working with HP Designjet Z-series printers (the Designjet Z3100 as well as the Z3200), Saffir had tried using a non-HP large-format printer for this type of work but had become concerned about how long it took to get the colors right on the final prints. The many hours he spent on the task pushed up labor and overhead costs, making reproductions expensive. The workflow involved supporting the painting on an easel, illuminating it with two lights at opposing 45-degree angles, aiming the camera directly at the center of the painting, and photographing it—so far, so easy. However he found that the lighting setup made it difficult to render finer details of texture and brushstrokes on the reproduction. "Given the uniformity of the lighting," explained Saffir, "the final image often looked flat. While advanced lighting and Photoshop techniques can mitigate this, it requires additional time and expense to do so." Difficult for the photographer to control were the color temperature and the distribution of lighting. "Some lighting types can be inconsistent," he said, "and reflectance and density vary from

Big Sur – watercolor painting by Jim Hull

painting to painting, as does color. Managing these variables requires painstaking attention to detail at every stage of production. In order to succeed in the fine-art reproduction business, a photographer needed experience and specialized training."

**70 to 80% reduction in time and cost**

For Saffir, the new HP Artist Solution for Nikon streamlines his workflow, provides critical support in key areas of production and quality control, ensures consistent results, and saves time and money. "The HP Artist Solution for Nikon is truly something new under the sun," he said. "This solution incorporates end-to-end production tools and workflow for very high-quality fine-art reproduction. What used to be a tedious, time-consuming, and expensive task is now much more streamlined, consistent, and less costly. In fact, my preliminary analysis shows that the cost of reproducing one piece of artwork can now be reduced by as much as 70 to 80%. This does not include any savings that may be realized through reduction in wasted materials or unneeded proofs."

With the new HP solution, Saffir places a clean white board on the easel and arranges lighting either at 45-degree angles as before, or on only one side of the painting (if he wants to emphasize texture). He does not necessarily need to create even illumination because the software automatically compensates for lighting variation. Having photographed the board, he is careful not to move any of the equipment as he places the painting in front of it and takes a second photograph. "Once work has begun," he commented, "you can photograph as many additional pieces as necessary." Saffir then spends about five minutes using an X Rite i1 hand-held spectrophotometer to sample colors of the painting itself as well as the white of the board. He loads the measurements and images into the HP Artist software embedded in the StudioPrint DFA-edition RIP and, in less than a minute, has his adjusted image file, ready for minimal (if any) tweaking in Adobe Photoshop and for printing. The adjusted file incorporates not only compensation for lighting variation, but also optimized colors for printing. "It's very helpful that the software calculates an ICC profile for the final image file," said Saffir. "The profile is actually customized for that particular image."

Rosetta Nebulae – watercolor painting by Jim Hull

> "My preliminary analysis shows that the time and cost of reproducing one piece of artwork can now be reduced by as much as 70 to 80%."
> — David Saffir, Fine Art Photographer and Printmaker, Santa Clarita, California, USA

So how do Jim Hull's watercolor pieces fare under the new process? "Much less work is now needed to achieve the goals that Jim and I have agreed on," said Saffir. "Jim is looking for accuracy in details and colors that are as good as possible. There's a wide range of colors on his palette. To reproduce all of these accurately is not easy, but the HP Artist Solution for Nikon does a beautiful job, providing a greatly improved adjusted image file and in record time." Saffir calculates that a job that once took more than five hours can now be done in about an hour, the main time savings arising from the flexibility in lighting setup, the almost complete elimination of Photoshop editing time, and the automation of printer calibration and media profiling on the HP Designjet Z-series printers.

**Cameras used with HP Artist Solution for Nikon**

"At present, the camera I use with HP Artist Solution," said Saffir, "is the Nikon D3, which is a professional 12.1 MP D-SLR camera." This camera is equipped with an FX-format, full-frame CMOS sensor and captures images in 12-bit or 14-bit depth, utilizing a 16-bit pipeline. File format options include NEF (RAW), TIFF, and JPEG. "The Nikon D3 camera has received very high ratings in recent reviews," said Saffir, "and I have found it to be a superb tool."

Another camera, the Nikon D3X, is an FX-format full-frame 24.5 MP camera, and it too is integrated through HP Artist Solution for Nikon. "The image quality generated by both cameras is superb," said Saffir. "When either one is coupled with the AF-S VR Micro-NIKKOR 105mm f/2.8G IF-ED lens, it yields very sharp, detailed images and excellent color. This NIKKOR 105mm lens is ideal for fine-art reproduction. Its flat-field characteristics render images with superb edge-to-edge sharpness and consistent illumination throughout. Nikon also provides excellent speed-lights, which can be used for fine-art reproduction; the SB-900 units can be remotely controlled by either of the cameras."

**Increased gamut and productivity**

Saffir enthuses about recent technological developments in digital photography, describing the current age as a "golden" one for fine-art photographers. He was quick to embrace the benefits of the industry-revolutionizing HP Designjet Z3100 Photo Printer, its outstanding photographic quality simultaneously displaying both shadow and highlight details; the ease at which consistent, accurate colors are achieved on countless media types; its exquisite black-and-white photographs, whose depth and contrast draw the viewer in and whose blacks remain neutral under different viewing conditions; and the removal of bronzing as an image-quality issue.

Now that Saffir has also taken on board the new HP Designjet Z3200 Photo Printer, he describes how technological developments have built upon the success of the Z3100 model and are helping his work: "The HP Designjet Z3200 Printer has a very wide color gamut," he said. "It incorporates a new ink formulation for the red channel, called Chromatic Red, so images that contain a lot of red tones look better. You can see more details in red-tone highlight, shadow and transition areas. You can also achieve more saturated and more vibrant reds and oranges. I directed the artist Jim Hull towards the Designjet Z-series printers because they give a better result than other printers I've tried, and specifically towards the Designjet Z3200 because of the intensive use he makes of red tones in some of his work, for example in the piece titled 'Big Sur,' which he did of the coast of California."

## At a glance

**Industry sectors**
Fine art reproduction
Fine art photography

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Another area of improvement that Saffir has experienced with the HP Designjet Z3200 compared to the Z3100 is in productivity. "The speed of the printer has increased significantly," he said, "which should make this machine even more attractive for those who need higher-volume output."

**Darkroom-emulating and durable printing materials**
Like its predecessor, the HP Designjet Z3200 has an Eye-One spectrophotometer embedded within, enabling easy, quick, and accurate profiling of numerous, original media types. Photographers and fine artists can also draw from over 50 HP large-format printing materials, including new HP Baryte Satin Art Paper. "This is a wonderful paper," said Saffir. "It has been designed to emulate the darkroom and it does so perfectly. I lean towards using it for black-and-white printing, for which it's very much the darkroom equivalent, but it's also good for color." He also spoke of other papers that he uses regularly: "My personal favorite is HP Professional Satin Photo Paper," he said. "It has an excellent color palette and a very good dimensionality, a good, robust construction—it's durable. HP Hahnemühle Smooth Fine Art Paper is another of my favorites. It's very responsive to control and gives excellent fidelity in details. It's durable with a robust weight, very versatile, and ideal for art reproduction. In fact, it's the paper I use for Jim Hull's watercolor reproductions."

**Customer satisfaction**
Providing an easy, integrated fine-art reproduction solution incorporating paper, printer, processing software, and camera optimization, the HP Artist Solution for Nikon is producing spectacular results for Saffir and his artist clients, so much so that they are amazed when they see the prints. "Jim Hull says he likes the reproductions better than his own original watercolors," said Saffir, "because on the prints he has been able to increase density and contrast."

## Challenge

Expand professional photography business by entering digital fine-art reproduction market

## Solution

HP Artist Solution for Nikon:

- HP Designjet Z3200 Photo Printer (which incorporates a 12-ink printing system with HP Vivera pigment inks, including HP 73 Chromatic Red)
- ErgoSoft StudioPrint RIP software, in its DFA edition powered by HP Artist Software
- Nikon D3 or D3X camera with Nikkor 105-mm macro lens

HP large-format printing materials, including:

- HP Hahnemühle Smooth Fine Art Paper
- HP Professional Satin Photo Paper
- HP Baryte Satin Art Paper

## Results

- Dramatically faster project turnaround, with reproduction times reduced by as much as 70 to 80%
- Higher margins and lower expenses, with reproduction costs also reduced by up to 80%
- Ability to satisfy even the most demanding customers with high-quality, faithful reproductions that contain smooth transitions, fine details, and vivid colors, including outstanding saturated red tones.
- Efficient business model of on-demand printing with consistent results
- Creation of TIFF files that are editable if needed, and which contain custom ICC profiles unique to the artwork captured

To learn more, visit www.hp.com/go/HPArtist

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