Hardware Review
HP Designjet 4520

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HP's New Designjet 4520 Large Format Printer

I've been to quite a few trade shows where I watched in amazement as super-sized glossy full-color images rolled off HP's large format printers. But, I had never had the chance to experience and evaluate one of these big printers up close and personal. My chance came a few months ago when I agreed to evaluate HP's latest entry: the new HP Designjet 4520.

My journey began with the arrival of two gigantic boxes that three of us eased into our small office followed by the arrival of an HP customer engineer who assembled, calibrated, and tested the printer. He then gave me a quick operating tutorial, left his business card, and I was on my own ready to put this industrial strength printer through its paces. In addition to experiencing the printer for myself I interviewed a professional large-format printer user, did sample printouts for a local industrial design company, and interviewed the experts at HP to fill in the gaps and learn more.

The Designjet 4520 is a major upgrade from its predecessor the 4500 delivering faster processing through-put with higher memory (608 MB vs. 256 MB for the 4500), more supported print languages, and a 1 Gigabit Ethernet port that allows users to remotely administer the printer via the Internet.

At a higher level, the Designjet 4520 continues the tradition of its predecessor by sporting a fully integrated and self parking dual roll system so you can have two different sized or quality paper rolls preloaded and choose the one you'd like to use, or you can let this smart printer do it for you. Let's say roll number 1 is loaded with 24" paper and you send the printer a 36" job. A warning message pops up telling you that this won't work and gives you the opportunity to switch to the larger roll size.

Besides being smart, I found the DJ 4520 extremely easy to calibrate and use. In fact, it's no more complicated than printing on any printer, regardless of size. Only a few minutes after the machine was installed I was printing banners and full color marketing signs and brochures without a glitch. If I were asked to give a three word overview of the DJ 4520 I'd have to say, in big bold letters; EASE OF USE

Embedded Web Server

Accessing the DJ 4520 remotely is as easy as opening a web browser and typing in the printer's IP address. Once in, you can manage the printer from your desktop, from anywhere in the world. IT managers really like this because it allows one operator to remotely manage hundreds of printers regardless of where they're located. When the IT manager gets a help desk call he or she enters the IP address for that printer, sees a status like, out of paper, ink etc., and takes the appropriate action. The printer can also send pro-

active alerts to the IT manager who can jump in and work the problem. The web based console includes a full range of options that allow remote job que management, real time ink usage, media tracking and a full range of intuitive printer status information and management tools.

Instant Print Utility 3.0

To make things run even smoother I took advantage of HP's free downloadable Instant Print Utility 3.0. This well thought out utility handles virtually any printable file type, like PDFs, most graphics files, and the utility automatically integrates into Microsoft Office. So, rather than having to open a Microsoft document and print through its print driver I was able to right click, select Print Utility 3.0 from the pop-up dialog box and then choose my printer. I could then alter scaling, set up paper orientation and size and see how my job was going to come out before I clicked to print. The software is also optimized to avoid network traffic jams, that may compromise print quality, by significantly reducing the file size it sends to the printer. This little utility takes the guess work out of the printing workflow. Just one click and the job comes out right the first time.

Serif PosterDesigner Pro

I also had the opportunity to use Serif Poster-Designer Pro software, designed specifically for HP Designjet Printers, to create some very eye catching posters that we used with great effect to dress up our booth at a recent trade show. The program comes preloaded with a bevy of design templates that include attractive layouts for education, retail, business, sports, travel, celebrations and more, and a wizard that makes it easy to create anything from gigantic posters, to brochures and other collateral material. You can modify a template's color, add graphics or photos, and format text to fully customize your presentation. I am not a graphics designer. But, with Serif Poster Designer I was able to design and print

very attractive and professional handouts that enhanced our image and success at the show.

The program is extremely intuitive and I was able to jump in and start creating almost instantly. This software program is the perfect adjunct the DJ 4520, especially if you're going to use the printer to create posters and marketing collateral. The gold is when you hit the print button and the software finds your Designjet locally or on the network, and asks 'how do you want this laid out?' Tell it, hit print, and you're done. There's no scaling or thinking about it, it just works. It also shows you exactly how your print job is going to be laid out, so you can preview before pushing the button and won't be wasting paper and ink. These features tie back to return on investment – if you can hit print, and that print job comes out perfectly the first time, you haven't wasted time, energy or supplies.

The Million Dollar Question

At almost all the AEC, MCAD, and GIS trade shows that I've recently attended I have seen Eric DuPaul , Designjet Business Development Manager at HP, demonstrating HP's large format printers. And, I asked him the million dollar question: How long do the Designjet 4520 print cartridges last? Eric told me, "We go to many trade shows and get to demonstrate the printers for customers and prospects. While at these shows our team plays a little bit of a game to see how many prints we can squeeze out of a set of ink cartridges. At trade shows we typically print 29" x 42" full color documents that cover roughly 70% of the page. Before having to reload ink we are usually able to print out 4 rolls of 100 foot photo media, getting 33 prints from each roll on average." Eric also added that, "The 4520 probably has the highest capacity when it comes to prints per set of ink. And, with line drawings it goes 'forever.'"

An Industrial User

I had the chance to learn how HP Designjet 4500 and 4520 printers play in the commercial space by interviewing Johann Rasa , Operations Manager for Global Solutions at ARC (American Reprographics Company), one of the nation's largest reprographics companies. ARC offers a comprehensive business solution. Johann told me that, "We offer a cost per copy or a traditional lease to own business model. We are a reseller, and we provide tracking services so our clients can actually recover their costs. If you're an architect, for example, our cost recovery software allows you to charge your client for project print costs. We also provide all the consumables like paper and ink and take care of the maintenance so instead of buying a printer from a typical reseller, we deliver an entire gamut of services that includes delivery, installation, and set up by our trained technicians."

When Johann's clients need to print large format black and white as well as color at fast speeds, and where they don't need a more expensive toner-based black and white printer, he sells or leases them an HP Designjet 4520. Johann said that. "For many of our clients the 4520's b&w through-put of 25 seconds/page for a D size line drawing is more than enough, and we absolutely like the fact that the 4500 series has two rolls built in. This is really good for clients because they can print half size prints off one roll and full size off the other. It's a great feature to have, and they can also load up photo quality paper for full color and regular bond for black and white and switch between the two."

In summarizing Johann said that the 4500 series printers are perfect for CAD type applications, and with the 4520 "You have one machine that can give you both black and white and color and it absolutely serves the purpose well." In closing he said that, "We are very happy with the 4500 series printers, both in-house and at our clients'. The HP printers are very robust with few support issues, and HP has been very responsive. We do the bulk of the maintenance and offer cradle to grave service from printing, to tracking to billing and more."

Summary

I used my demo unit almost daily over a three month period without a glitch, and have to agree with Johann that this is one robust machine. I also never ran out of ink, even though we printed super sized banners galore which we proudly displayed at three trade shows. I even helped a local industrial design house (1D3D, Inc.) close an important sale by printing out a 3D visualization which they presented to their prospect, who is now a client! All and all my Designjet 4520 large formatting printing experience was so easy and went so smoothly that I had a hard time figuring out what to write about. But, that's a good thing. This printer just works, and works, and keeps on working.

If you're looking for a robust and fast machine that delivers high-quality large-format drawings, graphics, maps, presentations, renders and posters and that can be expanded to include a scanner I highly recommend the cost effective HP 4520 starting at just $10,410.

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