

HP Graphic Arts Summit in Rome

Saving Ink and Time

With great pride, HP presented its new printers to the international press in Rome on May 10 and 11. HP uses new technologies to improve its printers and to save both ink and time, technologies such as DreamColor, the Optical Media Advance Sensor and Vivera inks.

By Job van Haaften

Rome

The day we arrived, May 9, was Europe Day which celebrates the signing of the Treaty of Rome 50 years ago. This treaty established the European Coal and Steel Community, the predecessor of the European Union. It was a very special day for GeoInformatics to land in Rome, the city where the EU was founded, the city that was the center of the Roman Empire, and the city that contains the home of the Pope, who at that moment was visiting Brazil.

Great opportunity

HP put on quite a show. Steve Nigro flew over from the USA to welcome the press to the summit. Nigro is Senior Vice President and General Manager of Imaging and Printing Technology Platforms, part of HP's Imaging and Printing Group. The audience—the journalists—came from all over the world including Canada, the USA, Poland, Russia, England, Germany and Israel. Nigro described the summit as “a great opportunity for our customers, a great opportunity for us.” The challenge for HP, he said, is “to fit our products to various markets, tailored and customized solutions for every aspect of the graphic design industry.”

HP presented three printer series of particular interest to GIS professionals, the HP Designjet Z6100, the HP T610 and HP T1100—with new technologies like HP Optical Media Advance Sensor (OMAS), Vivera inks and DreamColor. (DreamColor is applicable to the Z6100 but not the T-series).

Optical Media Advance Sensor

The Optical Media Advance Sensor (OMAS) is a built-in sensor that follows the advance of the medium in the printer by scanning and comparing during the printing process. Using the same technology as in a wireless mouse, it diagnoses and reports every change in direction or location. Every anomaly in speed or direction is reported and adjusted so the correct amount of ink gets to the right spot. It helps overcome banding issues while allowing the printer to print at higher speeds.

The Vivera inks include matte black, photo black and grey. These inks produce strong blacks and neutral greys for the background or metallic surfaces, and strong, clear, accurate colors. David M. Ancona, Chief Designer at Volvo in Barcelona, said “we need more good neutral and silver colors, and that is what we get.” Another advan-



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HP Designjet T1100 line accuracy is improved at 0.1 per cent.

tage of using more inks is that less ink is needed to blend a color, which ultimately saves on ink. This means the medium dries more quickly and it ripples less than when larger quantities of ink are used. The inks also have improved durability, water-resistance and smudge-resistance, and a better resistance to fading. HP guarantees that prints on interior display and away from direct sunlight, will resist fading for more than 200 years on a wide range of photo papers and coated media. Water-resistance and smudge-resistance is up to ISO standards.

The DreamColor technology consists of an embedded spectrophotometer to ensure consistent colors on various media. The printed colors accurately match the colors on the display even on different printers. The spectrophotometer provides feedback on the color workflow. The same design on different media should

have the same intensity of color. Ancona: "We pay great attention to choosing colors and shades for our designs, so we don't want to spend even more time on correcting the colors."

HP Designjet T610 and T1100

The T610 has been designed especially for GIS professionals working from home and in smaller studios, producing fewer than ten prints a day. For teams of GIS professionals that produce ten to twenty prints a day, HP developed the T1100. It prints one A1 page per minute, which makes it three times faster than its predecessor, the HP Designjet 800, both in normal mode. The line accuracy is improved at 0.1 per cent; it was 0.2 per cent in the 800 and 1000 series introduced about seven years ago. This allows presentations with better readability. These printers allow lines with a minimum line width



The HP Designjet Z6100 is four times faster than its predecessor, HP Designjet 5000.



The six Vivera inks in the T-series, including matte black, photo black and grey.

of 0.067 millimeters vertically and 0.045 millimeters horizontally on HP Matte Film. This printer series can handle media up to 610 millimeters or 1118 millimeters in width.

HP Designjet Z6100

The most productive large format printer in its class is the HP Designjet Z6100. It is suited to teams of GIS professionals that produce more than 20 prints a day. Speed is always an important issue when purchasing a new printer, with labor costs rising and companies expecting greater personal productivity. The Z6100 produces output up to 92 square meters per hour on plain paper. That is four times the productivity of the HP Designjet 5000. On coated paper it produces up to 66.9 square meters and on glossy paper up to 23.4 meters per hour. The Z6100 uses eight Vivera inks, two more (light-cyan and light-magenta) than the T-series. Applying eight inks reduces the quantity of ink used. In addition to DreamColor, the printer is equipped with Double Swath technology: the Z6100 has twice as many nozzles as the HP Designjet Z2100. The Z6100 uses four pairs of HP 91 printheads. The maximum resolution on glossy paper is 2400 x 1200 dpi. The media can, respectively, be 1067 millimeters or 1524 millimeters wide, depending on which printer is chosen.

Translation and compression

The embedded HP-GL/2 language compresses the files without losing details or information. A 206 megabyte tiff file is compressed by HP-GL/2 to 6 megabytes which speeds up the printing process and reduces hardware and memory use. For the development of this language, HP cooperated with Autodesk, Bentley Systems, ESRI and Dassault.

The included drivers support Windows, AutoCAD R14, AutoCAD 2000 and higher and Citrix MetaFrame environments. The ps version of the printers supports all PDF files and PostScript files directly.

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