

Seeing the Bigger Picture

Don't Stumble at the Last Hurdle

From transport and logistics, utilities and mining industries, through to government and insurance companies, the need for geographic information is essential. Highly accurate information ensures a competitive advantage. There have been recent announcements in the press, such as TomTom using Tele Atlas, as well as the launch, and following success, of Google Earth. These are testament to the increasing popularity of GIS and the increasing demand for satellite imaging for everyday use.

By Paul Hinkins



The 44" imagePROGRAF W8400 (D) printer.

The latest large format printers released by Canon are the 44" imagePROGRAF W8400 (D) and A1+ 24" imagePROGRAF W6400 (D). Utilising dye-based ink, the printers possess a wide colour gamut. Coupled with new one-inch-wide high-density print head, these products produce microscopic 4-picoliter droplets. The imagePROGRAF W8400(D)/W6400(D) produce output speeds of up to around 2.2 minutes per page when producing A0 size images and 1.3 minutes per page for A1. Both printers offer a small footprint as well as supporting both Mac and PC platforms, which means that they can be integrated into an existing office solution. They also offer increased compatibility with standard software and the inclusion of PosterArtist and Digital Photo Print Pro as standard. PosterArtist has a catalogue of templates and images that allow users to create their own, individual poster designs. Digital Photo Print Pro has been designed to support large-scale photographic reproduction - enabling users to process, enhance and print photographic images without needing to use photo application software. Canon's imagePROGRAF W8400(D) and imagePROGRAF W6400(D) come with HDI drivers for AutoCAD and AutoCAD LT.

PCs and Handheld Devices

Technology has meant that GIS is now more sophisticated than ever, as are the devices with which we view pictures. Currently, images and maps are traditionally looked at or analysed on PCs and/or handheld devices. However, it seems that large format image output is an area that can be neglected. On-screen viewing is commonplace but is that

enough when examining an image closer detail? Printing is a vital part of the GIS process but is an area where businesses and organisations are sadly falling down.

Stand-alone Device

Over time, a myth has developed that printing, especially on a large format printer (LFP), is expensive and something that busi-

nesses do not necessarily need. To briefly clarify, a large format printer is exactly that, a standalone device that allows users to print large documents and, as with most technology, it has developed and advanced over time to produce cost-effective, high-quality images. Not only that, but there is also a lack of awareness that a large image can be printed out in its entirety from a single



device. Not de-bunking the myth that surrounds LFP could mean that businesses are missing out on a range of opportunities that could lead to an increase in revenue or a more accurate assessment of an image. It may not be seen as the most critical part of the global imaging process, but LFPs are a fundamental component and something GIS users should not ignore. It can also offer a competitive advantage and provide levels of detail; especially with satellite imaging that may not necessarily be seen on screen. A printed image can have a significant impact on a range of areas and activity, such as presenting plans, providing evidence in legal or insurance cases, searching for oil, or even for individuals to hang on their walls.

Breaking Down Barriers

GIS is an area where precision and data accuracy is key. With that in mind there may be a barriers to purchasing an LFP. These barriers can be easily overcome however. From discussions Canon has had with GIS experts it seems there may be a trust issue at play due to a reticence between what is seen on-screen compared to what is printed on the LFP, which may not necessarily represent the visual 'truth'. These reservations arise from the moment an individual presses 'print' as the data may not successfully transfer to the LFP, therefore printing an inaccurate image. This is not the case. Although with GIS, the conversion of data from application to printer is far heavier than a more traditional word-based document or low-res image, this does not affect the output. Currently, there are a range of software technologies that are specifically designed for GIS that can, and do, successfully convert large amounts of varying data to produce wholly accurate images. SCP is a company that provides one such software solution.

High-quality Images

Another perception is that the total cost of ownership of an LFP is high and that they are slow and cumbersome owing to the fact that they have to produce large, colour-intense images. As mentioned earlier, technology has allowed the printer industry to produce faster, high quality images cost-effectively. There are now LFP devices that can produce output speeds a little over 2 minutes per page when

producing A0 size images and significantly less per page for A1 – this certainly goes against the pre-perceived notion that large format devices are slow. These times are being reduced with every new product released. The printers also come in a range of sizes from 24 inches to 44 inches to cater for the diverse needs of the GIS market. Additionally, as with all printers, inks are not indispensable and do have to be replaced, which may be seen by some as costly and another barrier to adoption. The good news for the GIS industry is that the cost of print goes down when more ink is required, therefore significantly reducing the cost per milliliter for LFP. Most, if not all LFPs today possess a wide colour gamut or range, to ensure accuracy when matching the colour on-screen with the printed image. Ink technology has developed so much that LFPs can now produce microscopic 4-picoliter droplets that create vibrant and realistic colour output. For those that may have concerns about print parameters on a page, there is also a borderless print option to cover the paper from end to end and side to side, to show even more of the image creating the maximum impact every time.

Why Print?

There are many business benefits to printing a document that could enable competitive advantage for the commercial sector and provide greater clarity for the science arena. Besides cost, using an LFP can, quite literally, provide a bigger picture than looking at a screen. As images or maps can be printed in their entirety, users are able to get a broader perspective on an image. This leads to improved decision-making, as opposed to looking at an image in stages, which can be fragmented. Even with modern re-sizing techniques employed by most of today's GIS software – you cannot beat the impact a large format print has on the argument!

To give a better idea on this, consider screen sizes and think about a standard PC monitor or the screen on a handheld device – it is easy to understand that it is not possible to view an entire map or image in detail. By printing an image or map and placing it in front of the individual means detail can be seen more completely and more effectively. Printing can also allow an organisation to pre-

sent a stronger case, both commercially and within a scientific context as seeing an image as a whole in hardcopy can have a visual impact on its audience. It is an effective way to communicate a point to a non-scientific audience – this is particularly pertinent for the commercial sector and could be a matter of winning business or even to use as evidence from a legal standpoint.

More Printing Than Ever

Finally, another key benefit is a very simple one, tangibility. People do like to touch and look at documents. Consider the office environment for a moment, where it was believed that one day there would be the paperless office. The fact is that businesses are now printing more than ever. It is predicted that a staggering 37 thousand million pages colour printed pages will be produced by 2007 [1]. This is showing no signs of decreasing. It is testament to the fact that people like to print because tangibility ensures a better understanding of a document or image for the individual. From a scientific perspective, haptic perception, the exploratory use of touch, means that from childhood to adulthood, people find touch an extremely important sense, therefore to get the best performance out of individuals means providing tangible images.

Conclusion

By ignoring the benefits of large format printing, businesses and organisations are really stumbling at the last hurdle and not seeing the bigger picture. For those that thought LFPs were slow, expensive and cumbersome, technology has remedied all of those issues to provide an extremely cost-effective device that can quickly and accurately print images. GIS is all about getting the correct view of the world, so get printing to ensure greater accuracy and more effective information share along with the improved decision making that follows.

References [1] IDC European Hardcopy Tracker 2004.

Paul Hinkins (paul.hinkins@canon-europe.com) is European Marketing Manager, LFP, Canon Europe. Product and company information on www.canon-europe.com.