

An Explosion of Colour:

Why Colour Printing is Rapidly Spreading Across The Enterprise

The need for colour printing has extended beyond the marketing department to include human resources, finance, sales and engineering. Adding colour to training materials, financial reports, customer presentations and technical diagrams creates greater impact and clarity. However, IT departments are slow to suggest and standardise on colour across the enterprise.

Common roadblocks include the perception of excessive costs, management difficulties and the inability to control usage. Fortunately, economical colour laser and business-class inkjet printers are overcoming IT concerns by bringing the management and control of black-and-white laser to the colour printing world. This paper will examine some of the issues preventing the implementation of colour printing and how new products and technology are enabling colour throughout the enterprise.

Colour Printing Market Drivers

Colour is important in life and business. Colour shapes our decisions and guides us. However, until recently business printing has been relegated to a mostly black-and-white universe. The mass appeal of personal colour inkjet printers has driven the demand for colour to the doorsteps of businesses. As employees see the benefits of printing in colour at home, they realise the advantages of colour applications at work.

According to IDC, colour printing adoption will grow ten times faster than black-and-white printing by 2008¹. By the same year, the majority of colour laser printers will cost less than \$1000². Interestingly, over the last decade, colour printing has seen annual growth in excess of 20 percent, while the average selling price of colour printers has dropped more than 25 percent annually³. As Don Jones describes in his book *The Definitive Guide to Office Colour Printing*, "Business communications have been in black and white primarily as a result of factors such as cost and availability, not because business communications are better in monochrome⁴."

¹ Krmetz, K. (November 2004). IDC Insight.

² Lyra Research. (August 2004). Color Laser Printers: Worldwide Market Forecast.

³ Gartner. (2005). Exclusive Gartner Interview with Peter Grant.

⁴ (2004), p.11.

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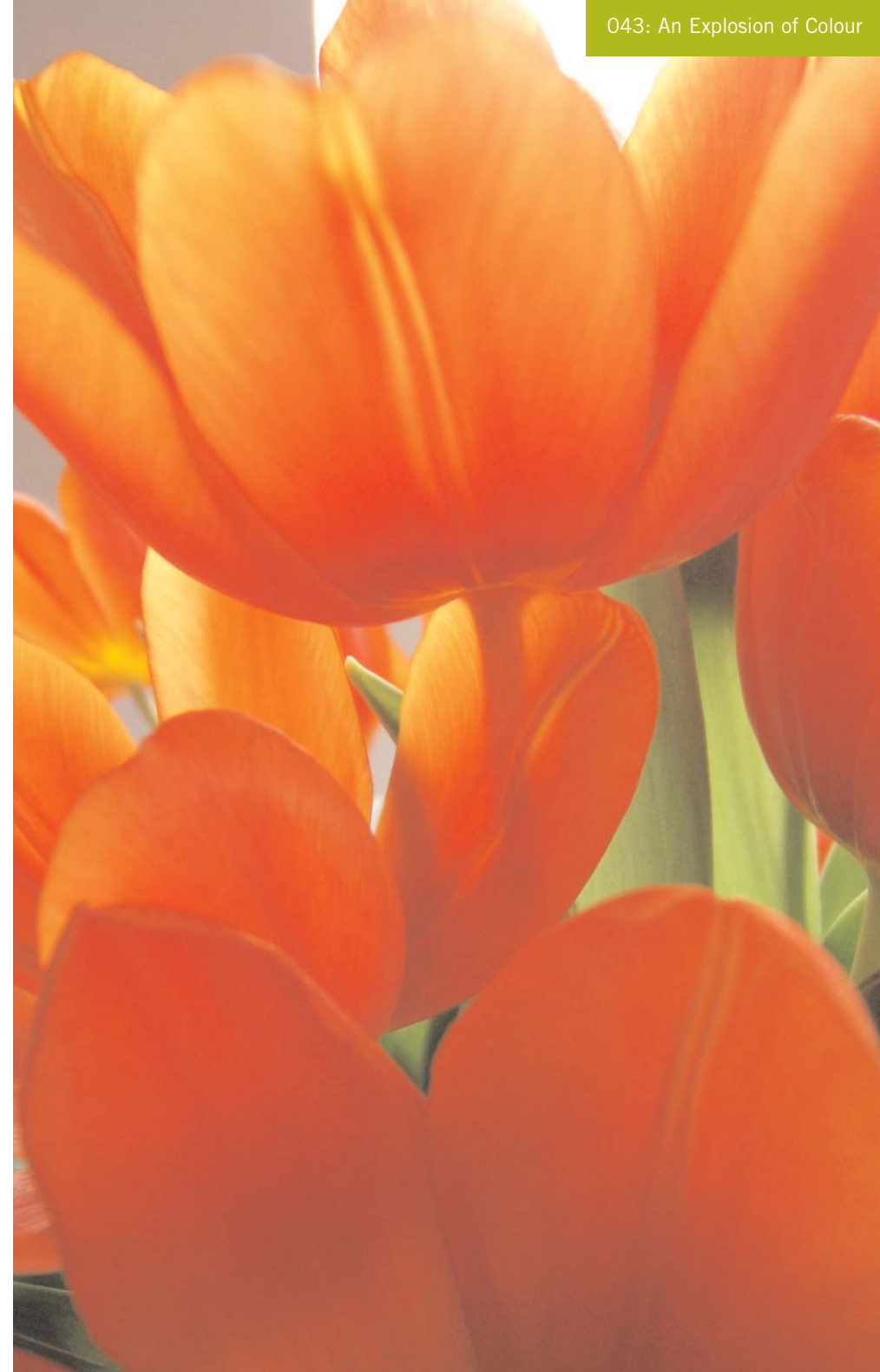
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The use of colour in business printouts helps increase comprehension and memory retention by enabling employees and customers to quickly scan a document and find important information. Messages printed in colour are up to 78 percent more likely to be remembered.⁵ Gartner found that when invoice amounts due and return addresses were highlighted with colour, accounts receivables were shortened from an average of 45 days to fewer than 30 days.⁶ Everyday uses for colour in the business world include:

- Highlighting key points on a memo to get attention
- Helping locate important information on financial reports
- Enhancing the likelihood prospective customers will read proposals
- Attracting more readers to internal newsletters

The Myths Preventing Colour Printing Adoption

Many business professionals who are responsible for colour print deployment decisions are operating on outdated assumptions based on past experiences with colour printing. The three most common objections include colour printing is too costly, is difficult to manage and will be abused by employees. While many of these concerns were valid five or ten years ago, they are overcome with modern colour printing solutions.

Myth #1: Colour printing is too expensive

The cost argument against embracing colour in the enterprise starts with the many of thousands of dollars that must be invested to acquire a colour laser printer and usually ends with the enormous costs of colour ink and toner. Add to this the concern that colour printers are slow, generally require constant ink and toner replacement, and hog network bandwidth. In addition, the management cost of constantly replacing colour cartridges makes colour too costly to implement.

While all of these issues may have been true in the past, they are not true today. In reality, colour laser printers can be purchased for less than \$400 and colour business-class inkjet printers are actually less expensive per page than colour laser printouts. The average cost per page for colour printouts has dropped from multiple dollars per page to less than 10 cents per page.⁷ When the productivity and comprehension value of colour is factored in, the results are significantly better than black-and-white printing.

Speed is no longer an issue. Colour workgroup printers can easily accommodate from 17 to 24 pages per minute. Larger capacity, colour-segregated ink cartridges reduce the need to constantly replace ink. Larger memory, faster colour printer processors and built-in print servers enable quick processing of complex print requests, freeing the network for other tasks.

Myth #2: Managing colour printing is difficult

The management myth typically includes visions of help desks being hounded by out-of-ink calls and colour printers lacking the sophisticated management capabilities commonly found with black-and-white laser printers. The belief is that colour printers lack useful information that notifies IT personnel when ink or toner levels are low, users cannot figure out how to replace colour cartridges and printers have no way of tracking and projecting the use of toner and ink.

The reality is that colour printers offer the same powerful management capabilities as their black-and-white cousins. Centralised management tools enable IT to remotely monitor printing and generate reports. Alerts can be sent when toner and ink levels are getting low. Automated supply reordering is even available with some solutions. Proactive alert capabilities also enable IT to fix problems before users encounter them, reducing help desk calls.

Users can also easily manage the replacement of ink and toner. On-screen displays on colour printers clearly indicate ink levels. Administrators can easily reset and reconfigure printers remotely, as well as manage user print drivers.

⁵ Pantone Institute. (April 17, 2000). Retail Systems 2000 Presentation.

⁶ Gartner. (2005). Exclusive Gartner Interview with Peter Grant.

⁷ HP. (February 2005). Communicating Better with Colour.



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Today's colour printers are much easier to use and more reliable than older colour printers. Printing duplex has become standard on many colour printers, and stapling, collating and finishing work are available in affordable colour solutions. Large paper capacities also decrease printer management by reducing out of paper delays. Additionally, high-capacity ink cartridges reduce the need to constantly replace cartridges.

Myth #3: Employees will abuse colour printing privileges

The third objection, a lack of user control, says that colour printing will open Pandora's box and everyone will be printing party invitations and personal photographs, creating a costly expense for the business. In addition, there is no easy way to prevent users from printing in colour when they should be printing in black and white.

Lastly, it is difficult to track colour printing usage by department, leaving Facilities or IT group with large bills. While it is true that some employees will always use business resources for personal purposes, modern colour printing technology can greatly deter such abuses. Centralised management tools enable IT to log who is printing in colour and what they are printing. When employees are aware that their printing habits are being monitored, they are less likely to abuse colour printing privileges.

Additionally, print drivers can be preconfigured to only print black and white to colour printers for certain types of users. For example, a workgroup can share colour laser printers, but certain employees can be restricted to only print black-and-white output on the colour printers. Moreover, users can be allocated monthly colour print quotas and certain types of documents can be restricted from being printed in colour.

Modern colour print solutions also enable charge backs for departments that consume colour resources. Interestingly, research reveals a majority of businesses feel that colour printers do not need to be monitored and controlled for access and usage.

Business Colour Printers

Business colour printers come in two primary flavors: business-class inkjet printers and colour laser printers. Both solutions are very robust and designed to accommodate the larger duty requirements of business departments.

Below is a high-level overview of the key differences between colour laser and business-class inkjet printers.

Attribute	Business-class Inkjet	Colour Laser
Cost per page	Lowest cost per colour page	Lowest cost per black-and-white page
Duty cycle	10,000 to 30,000 pages per month	30,000 to 200,000 pages per month
Colour print speed	Fewer than 1 to 24 pages per minute	4 to 27 pages per minute
Black-and-white print speed	10 to 30 pages per minute	12 to 27 pages per minute
Media flexibility	Highest flexibility for media types	Best for media that is not heat-sensitive
Photo print quality	Excellent, depends on media	Very good, does not depend on media
Text print quality	Very good	Excellent
Print durability	More sensitive to elements	More durable
Initial investment	£39 to £1295	£399 to £5999
Paper trays	80 to 650 sheets	250 to 1100 sheets
Paper size	Accommodates the widest range of print formats	Works best with letter- or legal-size paper
Consumables	Lower yield per ink cartridge	Higher-yield toner cartridges

Business-class Inkjet

Business-class inkjet printers are ideal for smaller companies or departments that demand higher quality colour output. Business-class inkjets deliver the lowest cost per colour page, can accommodate a wider range of media (such as glossy paper) and have lower acquisition costs than colour laser printers. Business-class inkjet printers can produce photo-realistic output and deliver results that rival professional colour printing.



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Business-class inkjet printers typically include a separate ink cartridge for each primary colour. Because the output from inkjet printers is wet, paper type can have a dramatic impact on print quality. Special paper is required to achieve the best quality output.

Colour Laser

Colour laser printers are ideal for larger businesses that demand high volumes of both colour and black-and-white output. Colour laser provides the highest fidelity black-and-white printouts. Colour laser delivers the lowest cost for monochrome printouts, has much higher duty cycles than business-class colour inkjet printers and is generally faster. Multiple higher-volume paper trays and higher-yield consumables reduce the need for manually adding paper and changing toner cartridges.

Colour laser printers are available in two primary styles: multi-pass and single-pass, also known as in-line colour printing. Multi-pass colour laser printers process a colour printout by passing a sheet of paper over a single drum for each primary colour (cyan, magenta, yellow and black) that is used to compose the printout, resulting in a printout that takes four times longer to produce than a single-pass solution or black-and-white output. A single-pass colour laser printer has four drums, one for each primary colour, resulting in a significantly faster colour printout.

Management Applications

Numerous applications exist for businesses to monitor and control the cost of printing in colour, improve colour print investment management and deter employee abuse. Below we have selected Hp's Web Jetadmin as an example. Insight are able to advise of management applications offered by multiple printer manufacturers as well as independent management applications to centralise management printer estates with differing printer types.

Web Jetadmin: Centralised print management

Web Jetadmin from HP enables IT print administrators to remotely install, configure and

manage colour printers via a standard Web browser. Providing a complete view of the print infrastructure, Web Jetadmin can automatically discover new network and PC-connected printers. Using a simple to operate, centralised interface, IT can configure colour printers, conduct diagnostics and perform batch firmware updates, dramatically reducing the costs of managing colour and black-and-white printers.

Web Jetadmin can also streamline consumable reorders via just-in-time replenishment that orders toner and ink as needed. Web Jetadmin can also proactively alert administrators when printers need cleaning or replacement parts. Drivers can also be preconfigured for certain types of users, enabling black-and-white printing only to colour printers if necessary. Colour print thresholds can be established to help keep the cost of colour printing under control.



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About Insight Colour Print Services

Insight can recommend the most affordable and effective strategies for integrating colour into the enterprise. Insight offers services and solutions that monitor colour print use and distribute costs back to the departments with the highest use rates. Insight can also aid with a balanced colour print deployment—ensuring the right printing resources are in the right place, for the right price.

In addition to offering a wide selection of the latest printing and print management solutions, Insight offers print assessment services that examine the current organisational costs of printing and offers strategies for efficient, cost-effective print management.