

Integrating color into your printing strategy

- The value of color 2
- The cost of color 2
- A complete approach to integrating color 3
- Successful integration of color: examples by industry 7
- Want to know more? 8
- How HP can help 8



As color printing becomes increasingly accessible and affordable, more organizations than ever are making it a standard part of the office printing environment. To get the most value from an investment in color printing, it's critical to incorporate color into the environment in a planned, informed way. That means making decisions about how to invest in, deploy and use color printing that are based on solid information about what documents need to be printed in color and which users will be involved—just as you would for other printers and devices in the environment. Integrating color printing into an overall printing strategy in this way makes it possible to “manage the device to manage the cost” and thereby maximize the return on an investment in color printing.

“Color communications can improve comprehension by 75 percent over black-and-white communications. Readership of color documents can be 40 percent higher.”

–Don Jones, *The Definitive Guide to Office Color Printing*

The value of color

Successfully incorporating color into your printing strategy begins with recognizing the strategic value that color brings to organizational communications. As Don Jones points out in *The Definitive Guide to Color Office Printing*, “Color communications can improve comprehension by 75 percent over black-and-white communications. Readership of color documents can be 40 percent higher. Training materials can accelerate learning from a rate of 55 percent to a rate of 75 percent.”* This impact creates strategic value through its potential to positively affect revenue and productivity.

Revenue impact

For example, in the financial-services industry, advisors who counsel individuals on their financial future must often present complex information about investment options in the form of charts and graphs that may be inherently difficult to understand due to the amount and type of data contained in them. Color can help customers understand this information better by drawing attention to key figures and conclusions, making it easier for them to get the information they need to make appropriate investment choices. This in turn creates the potential for positive revenue impact for the financial-services provider that is presenting various investment options to the customer.

Productivity impact

Color can add value not just to an organization’s customer-facing documents, but also to documents within its internal operations. For example, training in any organization can be more productive when color is used in manuals and other materials to highlight key points for participants. Color applied in this way will help convey information faster and more effectively, enabling teams to learn faster and better and to start applying what they’ve learned sooner.

Using color in employee-facing communications such as newsletters, posters and banners can also impact productivity. When color is employed strategically to highlight key information, employees are able to quickly see, focus on and grasp the information, so they can spend less time with these types of materials and more time on more productive tasks.

The cost of color

When planning to integrate color into an overall printing strategy, the value that color adds is not the only factor to take into account. Cost is an equally important consideration. You have to look at not only the benefits that color will deliver, but also what it will cost to bring those benefits to your organization. In calculating the cost of color, it is important to evaluate both the total cost of ownership (TCO) for color devices and the total value of ownership (TVO) for them.

- **TCO** refers to all the costs of color printing, both direct (hardware, software and supplies) and indirect (network impact, physical infrastructure and support). It is important to take all of these into account as you plan your investment in color printing, just as you would when planning an investment in monochrome printers or other devices.
- **TVO** refers to attributes such as reliability, availability and functionality that create device value for the cost expended. Color printers are extremely affordable today, but as with any technology purchase, the very cheapest alternative is not necessarily the wisest. The tables on the next page outline various capabilities that are associated with these attributes of TVO that you should evaluate before purchase. You can also find other useful tools for evaluation in the **Printer Comparison Center** on the HP Web site.

A complete approach to integrating color into a printing strategy

When integrating color into your overall printing strategy, consider the following aspects of color in the printing environment.

- What documents will you print, and what applications will you use to create them?
- Which color devices and technologies are going to be best suited to those documents?
- How will you deploy the devices and technologies?



- Who will use them and under what circumstances?

By taking the time to answer these questions, you help to ensure that you make the most effective and cost-efficient choices.

How color supports your document needs

There was a time not so long ago when the in-house use of color tended to be limited to organizations that printed their own product brochures and other high-end sales and marketing materials. That made sense when color printers were complex, expensive devices, and their return on investment came from helping to sell products and services and produce revenue. But now that color has become an affordable, accessible part of the printing environment, it can be used to add impact not just to high-end printing, but also to a host of everyday documents. Table three suggests a few examples of the many types of documents and printing environments that are likely to benefit from the use of color.

Table 1. Components of color printing TCO (total cost of ownership)

Category	Components to consider
Hardware and software	Color printers Hardware upgrades (paper handling, finishing options) Software licenses, upgrades, customization
Supplies	Paper Ink or toner
Indirect costs	Network impact, or cost to integrate color devices into the network Physical space and utilities User training Ongoing device management (usage reporting, supplies ordering) Support (maintenance contracts, warranties, help desk services)

Table 2. Components of color printing TVO (total value of ownership)

Category	Capabilities to consider
Reliability	Manufacturer reputation for and history of reliable devices
Availability	Waiting time to print files Length of cleaning cycles Device model's history of need for parts replacement and other interventions that cause downtime
Functionality	Print quality User-friendliness for non-graphics personnel Ease of connectivity (including wireless)



Expanded opportunities with applications

Color printing technology today broadens the ways in which you can use various applications to greater effect than ever. It is now possible to apply many colors to a wide range of applications—not just applications that are mainly for use by graphics professionals and other specialized users, but also widely used applications such as Microsoft® Office. There are also now dozens of font choices available for color printing that users can take advantage of to be much more creative.

The challenges of introducing color to your environment

The expanded potential for using color creates new opportunities for all kinds of organizations—and new challenges. After all, the more types of documents that lend themselves to color, the more important it is to be sure that the color printers you choose are appropriate to the types of documents that you produce and the applica-

tions that you use to create them. Here are just a few examples of the kinds of questions to consider as you determine what types of color printers will best meet your needs.

- Is speed an important requirement in much of your printing? For example, if you frequently learn on short notice that you need to print a fairly large number of color documents, you will need to take a close look at printing speeds of the devices you are considering.
- How much of your color printing is likely to be on standard-size 8½ x 11 paper (such as letters, RFPs and proposals) and how much will require non-standard size paper (such as folded 11 x 17 newsletters or oversized posters)? How much will require special handling such as folding or stapling, and how much will not? These issues will determine how much of your color printing

Table 3. Color: It's not just for sales brochures anymore

Environment	Color applications
General office	Memos, letters, reports and other everyday communications Hard copies of Microsoft® PowerPoint presentation slides Financial reports and spreadsheets Large-format blueprints and schematics Invoices and other customer-facing forms Internal and external newsletters Posters and banners
Financial services industry	Chart- and graph-intensive customer handouts Presentations personalized through use of color Invoices
Healthcare organizations	Critical instructions in patient charts Hospital schedules Pharmaceutical and equipment marketing materials Benefits information
Retail businesses	Point-of-sale promotional posters Shelf labeling In-store signage Promotional flyers in invoices and statements

The industry examples listed here are discussed in greater depth at the end of this paper.

investment will need to be in printers that meet specialized finishing or paper-size requirements.

- Do you expect to print photographs regularly? Photographs can be incorporated into many types of color documents to increase their impact, from product data sheets to news releases or other announcements. The extent to which you use photography and the quality of photo printing you require will influence the ratio of laser printers to ink printers in your environment. For photorealistic imaging, ink is the appropriate medium.

Devices and technologies

With multiple device and media types available for color printing today, organizations that deploy color need to make informed choices in these areas.

Integrated products

Color devices today are increasingly available as integrated products that provide both printing and copying capabilities. When should you make color multi-function products (MFPs) a part of your printing strategy? Decisions about MFPs depend on the types of users and kinds of tasks they perform. For example, workgroups that do a lot of printing and copying, in both color and black-and-white, will likely benefit from a device that can be used for either task. Such a device will save space and increase convenience by performing both functions instead of just one or the other.

If you determine that MFPs have a place in your organization, keep these criteria in mind in your product selection process.

- User interface that makes all functionalities easy to access and use
- Manufacturer's history of printer quality and reliability

- Color access control (learn more on page 6)
- Option to add advanced functions such as digital sending
- Additional functions such as scan-to-e-mail and analog fax
- Internal print server for networking
- Ability to do two-sided printing as well as copying
- Stacking, stapling and other finishing options

Ink and laser printing

When it comes to the way a color printer literally transfers images to paper, there are two different kinds of technology to consider: ink and laser printing. Because each is suited to a different set of tasks and circumstances, it makes sense to have both types represented in the printing environment. (See Table 4.)

Effective deployment in existing environments

An important part of integrating color into your existing printing environment is ensuring that printers are situated and networked in the most effective ways possible. This means first creating a plan for physically placing color devices based on user needs. Once you have determined where you are going to place the printers in the physical environment, you must decide where to put them on the network. Creating a dedicated server for printers (rather than locating printers on the same network segment as clients and servers, for example) may be the best way to ensure efficient network utilization.

Table 4. Color printer comparison

Color inkjet printing is ideal for...		Color laser printing is ideal for...	
Personal desktop printing	Inkjet printers are a good choice when a user needs a personal printer for sensitive documents or to enable increased productivity.	Shared printing	Laser printers provide reliable, consistent, workhorse performance for everyday printing, including high-volume printing on shared devices with few to many users.
A broad range of media	Inkjet printers accommodate flexibility in media, with 4 x 6 to large-format printing of everything from specialty papers (for photos, for example) to everyday office media large-format papers.	Standard-size documents	Laser printers work best with standard-size paper such as 8 1/2 x 11 and 11 x 17 paper.
High-end marketing materials	The advanced inks now available for inkjet printers provide the precise detail, gloss uniformity and consistent results high-end materials demand.	Selected marketing materials	While generally not appropriate for very high-end materials, laser printers deliver perfectly acceptable color quality and color matching for many marketing applications.
Small-space environments	Inkjet printers generally come in a smaller, more streamlined footprint that makes them better suited for use by small workgroups, especially those who share space in a relatively small work environment.	Documents with finishing requirements	Laser printers generally have more options for additional features such as multiple high-volume paper trays, duplexing capabilities and complex finishing features.



Access control and usage policies

Color can be a valuable addition to any print environment, but that doesn't mean its use should be unlimited. Some users may need color for specific printing applications, while others really only need to print in black-and-white. Other users may abuse color devices by making extensive use of them to, for example, print personal photos. In either case, you need ways to limit access to color printing for some users while enabling access to it for others.

Driver configuration for color access control

One way to control access to color printing is to configure the printer driver to allow only certain users to print in color. For example, you may want to limit the use of color to users who are responsible for producing certain marketing materials. Or you may want to allow full-time staff to print in color, but not short-term interns. Technology such as HP's Web Jetadmin can be used with a pre-configuration plug-in to accomplish this by configuring through two separate print queues.

Monitoring and tracking to detect misuse

If your print environment is at risk for the misuse of color—as in the earlier example about printing personal photos—look for technology such as HP's Web Jetadmin with a report generation plug-in to provide color usage tracking by job, user or device. Or if you simply want to track the use of the device for optimal placement and usage, technology such as Web Jetadmin can also provide information for this purpose.



Successful integration of color: examples by industry

While it's fine to discuss in an abstract way how to integrate color into the print environment, it's even more important to see some specific examples of how color can be used in a variety of industries in the real world. Here are a few selected examples.

Financial services professionals

- As briefly described earlier in this paper, financial advisors and other financial services professionals must often present and explain investment calculations and other complex data to their clients. By using color to highlight key data, they can present the information more clearly and help clients understand it more readily. This can speed revenue generation in situations where investment options are being presented. Making complex information easier to understand can also go a long way toward fostering customer satisfaction and loyalty.
- Financial advisors and other financial services professionals are in a unique position to use color to deliver highly personalized information to clients without incurring high costs for customization. If a client's investment goal is to finance a child's college education, for example, the advisor can personalize materials for that client with imagery associated with a favored university. Or if the goal is retirement in a sunny locale, imagery of places that fit that description can be incorporated into the materials.

Healthcare organizations

- From calling attention to critical information in patient charts to highlighting staff schedule information so that it's easier to read, hospitals have a multitude of opportunities to use color to improve efficiency in many everyday processes.

- Many physicians, dentists and other providers use photography in their practices to show and explain medical conditions and procedures to clients—such as before-and-after photos, for example. They can use color printing to make these images more precisely detailed and easier to use as aids in patient understanding. In this way, color becomes a loyalty tool for healthcare professionals.

- Sales representatives for pharmaceutical or medical-device companies are in a highly competitive field in which differentiating themselves to physicians is critical to winning sales. They can use color to cost-efficiently create customized communications about their products.

Retail businesses

- Frequently changing point-of-sale posters and signs, as well as catalogs and other sales materials, can be easily and cost-efficiently produced using today's color-printing technology. Directional and identifying signage in stores can also be quickly and easily executed on color printers.
- The use of in-house color printing technology need not be limited to in-store materials. It can also be used to print monthly promotional inserts of sales items that will be included in envelopes with invoices or other customer communications.

Want to know more?

At HP we understand that knowledge is the most powerful tool in business, government and education. Visit us on the web at www.hp.com/go/printingandimaging to find everything you need to know to understand what's going on in your printing and imaging environment and what you can do to get the most from your investments.

How HP can help

HP is the industry leader in printing and imaging innovation and reliability. Whether you need to buy one printer, develop a strategy for effectively deploying color, multifunction and document management devices, or you want to completely transform your printing and imaging environment, HP has the experts, experience and technology to deliver the right solution, right now. Call us at 1-800-407-9701 to talk about how HP can help you save money and increase productivity today.



Notes

* Don Jones, *The Definitive Guide to Office Color Printing* (realtimepublishers.com, 2004), 1.

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