The future-thinking print server.

It anticipates your needs. With the FreeFlow Print Server, you're positioned to not only better meet your customers' demands today, but to accommodate whatever applications you need to print tomorrow. Add promotional messages to transactional documents. Consolidate your data center and print shop. Expand your color-critical applications. Move files around the world. It's an investment that allows you to evolve and grow.

PDF/X support for graphic arts applications.

With one button, the FreeFlow Print Server assures that a PDF/X file runs as intended. So when a customer embeds color-management settings in a file using Adobe® publishing applications, you can run that file with less time in prepress and with consistent color. Files can reliably be sent to multiple locations and multiple printers with predictable results.

Color management for transactional applications.

If you're a transactional printer, this is the print server for you. It supports color profiles in an IPDS data stream with AFP Color Management—so you can print color with confidence. Images and other content can be incorporated from a variety of sources and appropriately rendered for accurate results. And when you're ready to expand into TransPromo applications, it's ready, too.

Find out more

To learn more about the FreeFlow Print Server and ConfidentColor Technology, contact your Xerox sales representative or call 1-800-ASK-XEROX. Or visit us online at www.xerox.com/freeflow.

xerox ⬤

Xerox FreeFlow®
Print Server
ConfidentColor
Technology
Brochure

Xerox ConfidentColor Technology
Putting exacting control in your hands.

xerox ⬤

It's what you need
to create something special, every day.

Manage color, beautifully. From desktop to press, the Xerox FreeFlow Print Server with ConfidentColor Technology gives you the power to manage color and quality—with ease, speed, and confidence. It's the print server to count on for the most creative—and most critical—customers. Yours.

Hands off or hands on.

Take a hands-off approach and let the server do its job automatically. Built-in and transparent controls optimize color for great results, right out of the box. Or refine server settings with hands-on flexibility. The user-friendly interface puts high-level control at your fingertips, so you can fine-tune for individual preferences or to compensate for less-than-perfect files.

Superior quality for every situation.

Whether you're starting out in digital color or are already delivering color-critical jobs, this sleek, simple, and smart print server can help you get the job done. It makes easy work out of both traditional CMYK and digital-age RGB workflows (including emulations), so you can move jobs between offset and digital workflows. And programmable queues allow you to easily customize your setup once and automate production, consistently giving you the results you need.

Color tuning down to
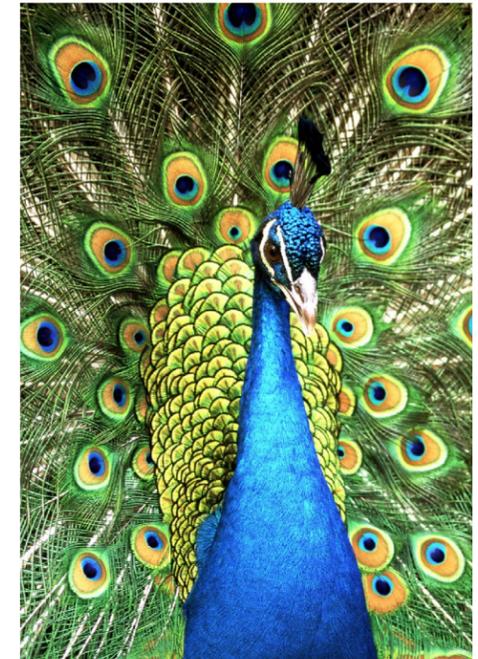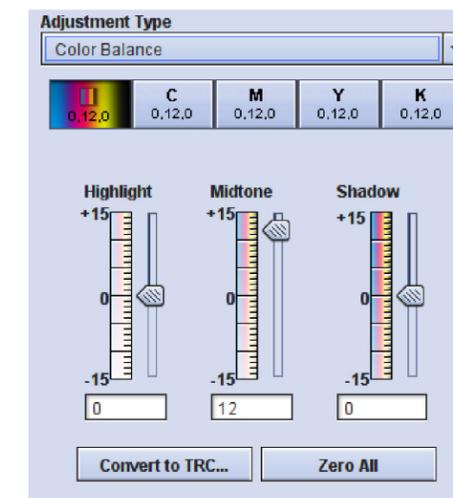## the page level for great control.

Control and flexibility.

While most print servers force you to apply the same color settings to a document in its entirety, with the FreeFlow Print Server, you have the flexibility to make adjustments to the entire document or at a page level. So you can fine-tune results to your satisfaction.

- Image-quality features can be customized to each individual page, including color profiles, anti-aliasing, and trapping.

- With Tone Reproduction Curve control, operators can manipulate CMYK separations independently and with extreme precision.

- In a save/reprint workflow, images do not have to be re-RIPped to apply these corrections.
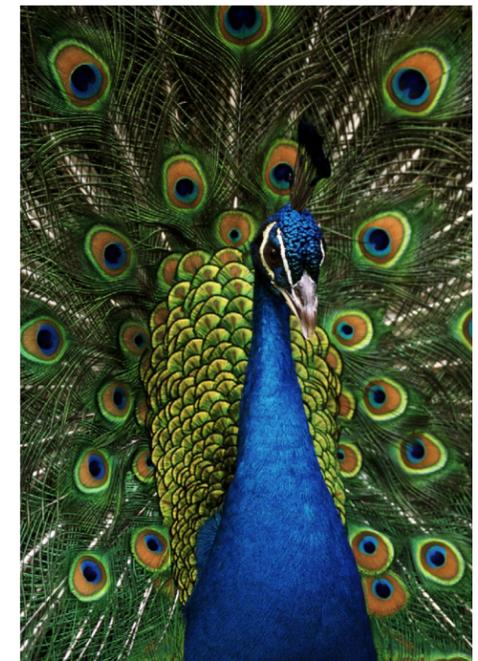
The FreeFlow Print Server builds in several levels of color control, so images can be corrected at the print server when adjusting the source files isn't practical. The resulting output quality is optimized because each page is treated exactly as needed.

Simplified color adjustment.

Slider controls make it easy for non-color experts to adjust highlights, midtones, and shadows. Create a warmer or cooler look, higher or lower contrast, or other color adjustment with these simple controls. A preview window shows real-time changes. And adjustments can be made at the job level, for page ranges, or on the queue.
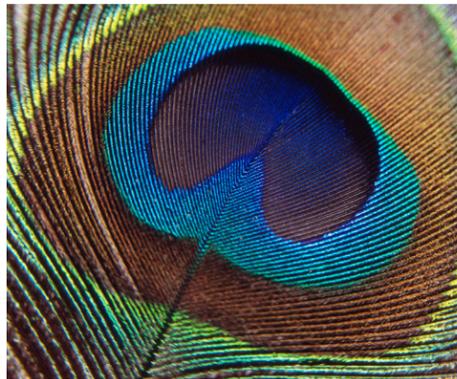

Before color adjustment

Automate each job and every workflow.

With the FreeFlow Print Server, page-level tuning gives you great control for individual jobs. But you can also set up queues so that color corrections are made automatically. What's more, you have the power to easily manage multiple jobs from multiple queues.

Set up customized print workflows once and use them over and over again—without having to reprogram. In addition to color settings, you can assign other printing parameters, such as paper size and imposition. With up to 250 queues, workflows can be created and saved according to the job or customer. Then individual jobs or batches can be routed through individual queues whenever needed. Simply, automatically, and with consistent results.

After color adjustment (midtone +12)*

*To see the difference illustrated by this image comparison, be sure this brochure is printed using a FreeFlow Print Server.

Give every object its due consideration.

Your documents get the special treatment they deserve when objects get individualized care and handling. Within any given page, you can have a combination of contone data (such as photographs), vector graphics, and text in both RGB and CMYK. Optimizing for only one object type—or compromising to accommodate all types—can result in less-than-optimal printing. To get the best results, the FreeFlow Print Server gives you a way to focus attention on each object and tailor its treatment.

Exceptional results, effortlessly.

The FreeFlow Print Server automatically recognizes what object type is being processed and treats it in the way that will maintain the highest possible quality. So when you send even a single page that contains several different elements, it will recognize which parts of the page are text, which parts contain graphics, and which parts contain images—and then treat each accordingly. You can get the best quality in photographs, for example, without compromising text and graphics.

- Separate color-management controls allow you to manually manipulate object types. For example, saturate your line work while preserving the integrity of images.
- Color overprints are honored and trapping is optimized for your printer so overlapping text, graphics, and/or images yield desirable and expected results.
- Anti-aliasing of text and graphics uses special processing to smooth the rasterization of curves and diagonal lines.

The beauty of all of this? You end up with beautiful results, automatically.

The power to look deeper.

When you want or need to know more, the FreeFlow Print Server gives you the tools to do so. Use Preflight to identify spot colors, RGB vs. CMYK, and more. With Advanced Preview, utilize the eyedropper inspector to gain extra insight that could aid you in color control.

Smart technology tends to the details.

You have files and images coming in from everywhere, and in a variety of formats and resolutions. The FreeFlow Print Server makes easy work of these challenges, optimizing the input you receive so you can get the best results with the least amount of work. It takes into account both the type of printer being used and human visual perception. These patented technologies—plus others—help assure that the details you began with are the details you output:

Xerox Multi-Mode Compression dynamically adapts to compress objects for easier file management without compromising image quality. It preserves sharp edges and fine detail in text and line work, while optimizing the compression of contone images on the same page.

Xerox Smart Interpolation uses sophisticated, context-based calculations to scale content up or down to match printer resolution.

Consistently outstanding results begin with superior calibration.

Produce color with confidence.

To meet the specialized needs of digital production environments, ConfidentColor Technology draws on a strong color heritage to take calibration to the next level. Thanks to a unique, patented calibration technology, the FreeFlow Print Server provides superior image quality—every time.

Calibrate for neutral balance.

This technology moves beyond traditional density control to provide true gray-balance calibration. So in addition to individual color levels, the FreeFlow Print Server analyzes CMY combinations from highlight through shadow, refining curves to assure neutral balance. You can count on exceptionally smooth transitions, and skin tones that are rendered with incredible accuracy.

Job, after job, after job.

For long print-on-demand and variable data jobs, the FreeFlow Print Server shines with outstanding consistency. It allows you to calibrate in the middle of the run—*without* the need to restart the job. And when it's time to reprint, Fast Reprint Format (FRF) assures that the job will run with the current calibration for superior and consistent results.

Keep it inline.

In addition to the superior calibration provided through the FreeFlow Print Server, a number of Xerox print engines offer an integrated spectrophotometer as a standard or optional item. This inline approach to calibration automatically gives you more accurate color, from the first proof to the last sheet.

Manage color across stocks

In the offset world where ink absorbs into paper, the stock you print on can dramatically affect your final output. In the digital world, stock is less of a factor. Still, there may be times when you want to fine-tune your color-critical work for different substrates. The FreeFlow Print Server makes it easy.

Set up stock groups and the FreeFlow Print Server will automatically apply the correct calibration to each page, even when you run a collated job with mixed stocks. Take control a step further and use the Print Server's profiling tool to create a profile optimized for a particular stock. Select that profile when needed—on a queue, job, or page level. You can even set a "Use Stock Profile" option that automates the selection for you.

For truly on-target color, you first have to get the neutrals right. The FreeFlow Print Server delivers with unique and innovative calibration technology. And no matter when you print—today, tomorrow, or next month—your prints will match.

Connect your color workflow.

Whatever the source, whatever the destination, get the color you want.

Achieving the "right" color for a job means linking with how color is defined upstream, and how output is matched across digital and offset devices. That's where ICC color management comes in. And where ConfidentColor Technology provides a powerful toolset for ease, efficiency, and accuracy.

Dynamic DeviceLink profiles.

Custom DeviceLink profiles are a snap when you need the control to emulate output from a press. When you use a custom-loaded profile, the FreeFlow Print Server dynamically creates a look-up table to link the source and destination profiles.

DeviceLink technology also preserves the K (black) information that's lost in traditional ICC color conversion. So, with the FreeFlow Print Server, you get output that more clearly matches the original intent.

DeviceLink provides a key component necessary for unifying offset and digital color workflows by giving you the same option with RGB data. The FreeFlow Print Server does this by passing RGB data through your selected CMYK device emulations, producing the closest reproducible output for both RGB and CMYK.

The ease of built-in settings.

Using its built-in profile representing centerline printer characteristics, the FreeFlow Print Server automatically provides consistency and quality. In addition, Gray Component Replacement (GCR) is optimized for each printer. Default GCR settings provide for efficient toner usage while still yielding high-quality skin tones and excellent highlight colors. The result is the balance you desire between image stability and smoothness.

The FreeFlow Print Server also includes built-in profiles for different gloss levels on a number of Xerox digital print engines. Choose the desired look and feel, then apply it to a queue, a job, or just a page.

Visual editing.

Before you print, you can easily adjust and verify spot color accuracy with the Spot Color Editor. It allows you to view the selected spot along with 16 variations that represent selectable increments of more or less of each process color. Print a sample for visual comparison and confirmation. Then, point and click to select a color, and continue to refine until you have a match. You also have the ability to create your own named spot colors for customized workflows. Best of all, using it doesn't require special color knowledge or skill.

Use the Spot Color Editor to easily view and change the values of a spot color recipe. With the currently selected color shown at the center, and incremental variations for each process color arranged around it, this tool puts fine control at your fingertips.

Source Profiles
Including industry standards and custom press profiles, such as GRACoL® and ISO, established for your offset workflow
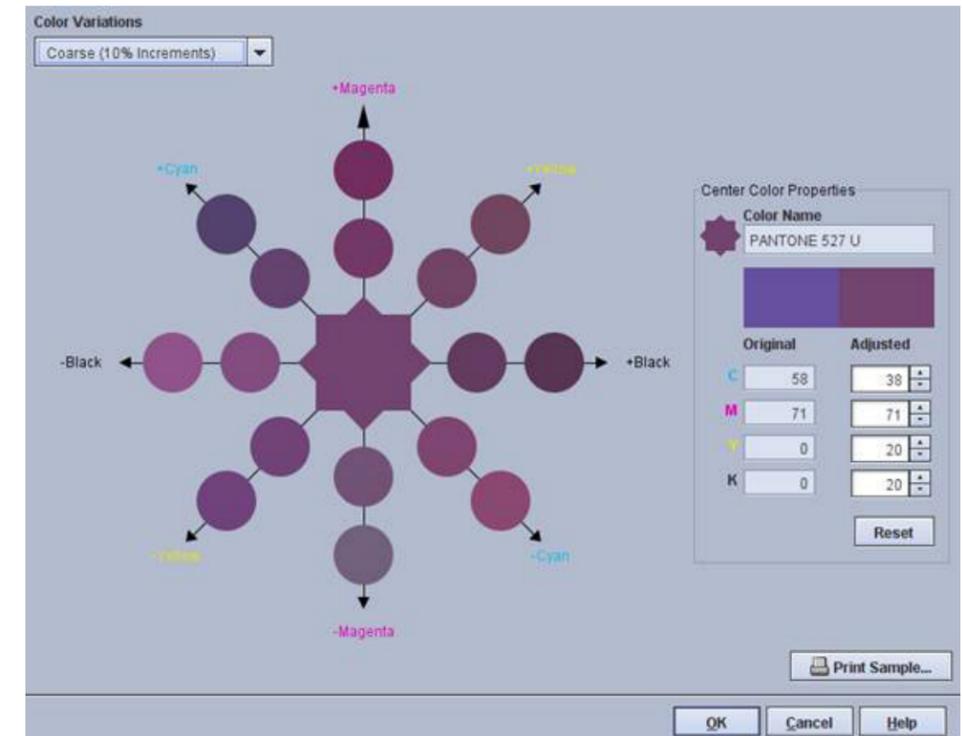
FreeFlow Print Server
Dynamic DeviceLink technology interprets and links profile settings

The strongest link.

With Xerox color science expertise on both your print server and digital printer, you can get more out of your workflow. DeviceLink technology on the FreeFlow Print Server automatically applies a job's source profile—whether it defines an industry standard like ISO or GRACoL, or characterizes your offset press—and links it to your destination profile. The result is outstanding output, optimized for whichever Xerox digital printer you choose—plus consistency in your workflow, from offset to digital.

Get ready to Goe™.

For the past 45 years, the PANTONE MATCHING SYSTEM® has been the industry's benchmark color specification system. It's provided a precise and reliable way for everyone in the creative and production processes to communicate with each other about color.

Now, PANTONE has introduced the Goe™ System (pronounced go), which includes 2,058 colors. Arranged in an intuitive, chromatic order, this color system was designed to meet evolving needs for easy, precise, cross-media color selection and specification.

While it provides a significantly expanded color palette, it does so using a smaller set of 10 mixing bases plus clear. In an offset environment, that means your customers get more color choices while you can keep ink inventory to a minimum. Thanks to the FreeFlow Print Server, you'll be able to specify and match these colors for your digital environment. So when your customers get "Goe-ing," you'll be ready for them.
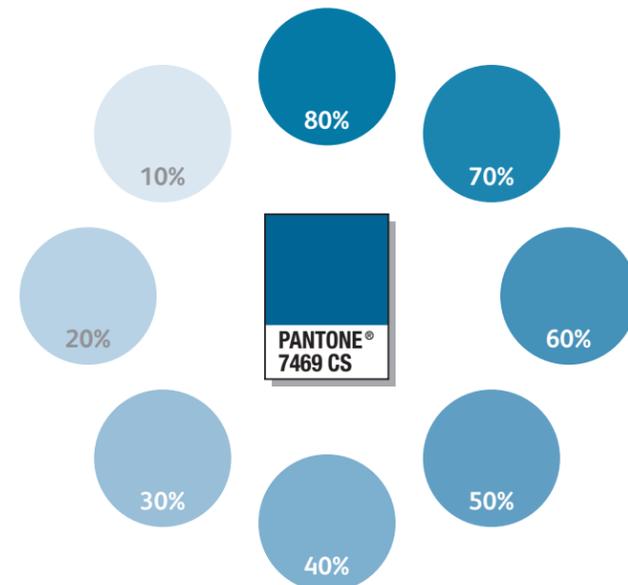
Hit the spot
with confidence.

Spot colors are spot on with the FreeFlow Print Server. That assurance of consistency will be especially important to your customers who use spot colors for brand identification or to visually connect a series of materials, such as collateral, direct mail, and business cards. With ConfidentColor Technology, spot colors will be what you expect. Whether applied to simple graphics, sophisticated multi-color sweeps, or multi-tone images, it produces spot colors with predictable results—from job to job, week to week, and machine to machine.

Color preservation.

When a spot color is identified in a file, the FreeFlow Print Server uses PANTONE®-licensed formulas defined for each Xerox digital printer family to preserve the color and fully utilize the rich gamut available. Because spot colors are processed independently, they're preserved regardless of other settings or adjustments made for RGB and CMYK.

ConfidentColor Technology does wonders for your spot colors, putting control and creativity at your fingertips. Tints are automatically calculated in an independent LAB space to maintain hue, delivering predictable screens, sweeps, and multi-tone images.

Tints and sweeps.

ConfidentColor Technology also preserves spot colors when they're used in tints and sweeps by calculating tints in an independent LAB space. When you lighten a spot using the tint control, the hue will hold true, giving you more creative control while assuring consistency.

Taking profiling to the next level.

Applying the most up-to-date and innovative algorithms, the FreeFlow Print Server uses advanced profiling to enhance how color is rendered into the digital printer gamut. The resulting profiles yield more accurate neutrals, skin tones, and other critical in-gamut colors. And, thanks to an advanced gamut-mapping method, detail is preserved in darker colors. So you get more pleasing results for your most color-critical applications.

For those Xerox print engines with an inline spectrophotometer and the optional Automated Color Quality Suite (ACQS), advanced profiling automatically measures target sheets as they print, and generates a profile for the DeviceLink workflow, all on the press. The quality of images, both RGB and CMYK, is finely tuned—and all at the touch of a button.

Intelligent rendering intent.

The FreeFlow Print Server automatically manages color rendering independently for both CMYK and RGB workflows, giving you the flexibility to operate in both color spaces. Plus, you can customize your rendering intent. Choose the setting that best fits the color space: relative colorimetric for CMYK images, perceptual for RGB photos. Or, select a setting to achieve a particular look and feel.

Destination Profiles
Optimized with ConfidentColor Technology to get the most out of each Xerox digital print engine

Color standards: meeting changing needs in a changing world.

Press-to-press variability in a traditional offset color workflow—and even with today's digital output devices—makes standardization an ongoing challenge. Traditional offset standards can be limiting in the digital world, where a broader range of colors can be produced.

New and emerging standards incorporated into the FreeFlow Print Server are more in keeping with actual capabilities and provide more realistic targets for both offset and digital presses around the world. These standards include GRACoL, ISO Coated V2, and Japan Color, among others.

The FreeFlow Print Server with ConfidentColor Technology integrates all of these standards to give you the functionality you need. You can even set different standards for different queues—such as for job type or customer. So when a file comes to you from anywhere in the world, using any color standard, you're equipped to produce superior color.

PANTONE® 7469 CS

80% 70% 60% 50% 40% 30% 20% 10%

Picture the potential.

RGB color isn't just an opportunity in the world of digital printing—it's a necessity. Jobs coming from corporate customers—where Microsoft® applications predominate—live in this space. So do photo applications like calendars, yearbooks, and anything that uses digital photography. With the FreeFlow Print Server, you can produce visually pleasing and accurate RGB color. Pleasing to your customers, and pleasing to your bottom line.

RGB converted to CMYK at the file source

RBG converted to CMYK at the FreeFlow Print Server*

Automated RGB file handling.

Leave your images defined as RGB and let the Print Server produce the best possible color on your printer—without an intermediate and limiting CMYK conversion. By delaying conversion of RGB images to the last, possible point in the workflow, the FreeFlow Print Server gives you the richest colors.

Handling embedded profiles.

Designers may embed profiles in their documents due to personal preference or in order to achieve a specific look. The FreeFlow Print Server helps you give them what they want with the click of a button. You can even set special queues for such files, speeding handling and processing at the server.

Enhanced black and white.

Why mention black in white when our focus is on color? Because with the FreeFlow Print Server, you can reproduce black-and-white photographs in two ways: using black only as you may do now, or with the increased assurance of neutral balance using four-color printing for smoother results. So you can give your customers a choice of looks using the same print server and digital printer.

Rendering for better results.

ConfidentColor Technology gives special attention to optimizing RGB color, so photos reproduce in high quality. Perceptual rendering—the default setting for RGB workflows on the FreeFlow Print Server—preserves the shadow detail, so photos appear sharper and with more definition.

Automatic Image Enhancement.

You may encounter lower quality photographs in consumer applications—things like real estate listings, yearbooks, and church directories. Here again, the FreeFlow Print Server has an automated solution. Through its Automatic Image Enhancement (AIE) feature, it enables "one click" photo enhancements for exposure, sharpening, saturation, red-eye reduction, and more. Use it to compensate for underexposure or overexposure. Bring details out of the shadows. Saturate colors flattened by ambient light. And more.

With AIE, you can make quick and simple modifications to photo applications while maintaining the integrity of the rest of the document. You'll get better results—without time-consuming or expensive prepress processes—presented with images of varying quality. You can even adjust AIE to target your preferences with custom color controls.
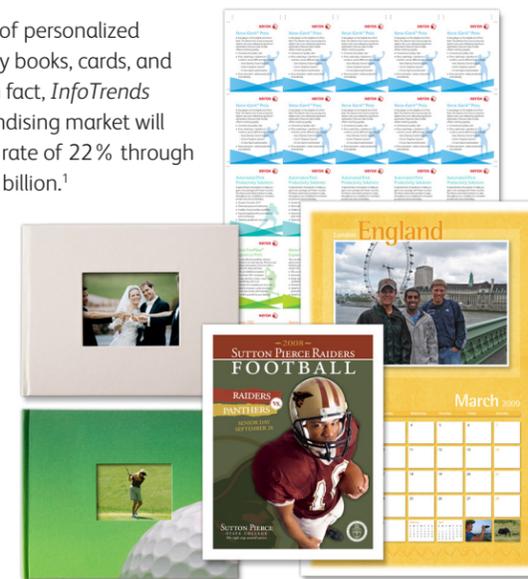
Direct printing of JPEG files.

Streamline your photo production or proofing with the FreeFlow Print Server JPEG Plug-in. It allows you to print raw JPEG image files, without having to preprocess them through a photo-imaging software program. When you have multiple images, you can select a repeat, alternate, or sequential format—then, batch process automatically for greater efficiency and profitability. Use it to automate your photo production, while enhancing speed, flexibility, and profitability.

Before AIE

After AIE*

Put more life into less-than-perfect images with Automatic Image Enhancement (AIE) on the FreeFlow Print Server. It's ideal for jobs featuring amateur or candid photography.

Market snapshot.

In the consumer market, the appeal of personalized photo specialty products like memory books, cards, and calendars is growing dramatically. In fact, *InfoTrends* predicts that the U.S. photo merchandising market will achieve a compound annual growth rate of 22% through 2013, with revenues surpassing $2.5 billion.[1]

An increasing number of businesses are also using customized photos to deliver more powerful and relevant marketing materials, as well as producing digital yearbooks and directories.

Together, consumer and commercial demands add up to potential opportunities for you— opportunities that the FreeFlow Print Server can help you make the most of with an automated RGB workflow that yields superior results.

*To see the difference illustrated by this image comparison, be sure this brochure is printed using a FreeFlow Print Server.

[1]*InfoTrends* "Photo Merchandise Products for the U.S. and European Markets," November 2008.
*To see the difference illustrated by this image comparison, be sure this brochure is printed using a FreeFlow Print Server.