

Streamlining color for *Reader's Digest*

A London repro house added color management to its asset management and workflow systems in order to land the *Readers' Digest* contract. That, in turn, led to winning new customers.

Effective implementation of digital technology is central to successful business development, especially in the printing and publishing business, but digital technology has had an especially cruel impact on the reprographics sector. However, it isn't all doom and gloom, and many repro companies are reinventing their businesses to provide digital media services. One such company is Colour Systems, based in London.

Colour Systems is using ICC color management as part of its media production services for *Reader's Digest*, which has multiple production sites throughout Europe. Colour Systems manages all production, readying pages for final output.

In Europe, there are now 20 editions of *Reader's Digest* magazine. In April 2002, the Reader's Digest Association (RDA) started working with Colour Systems to set up a single European production hub for all editions. Previously, the editions were produced at numerous sites. Image production was the responsibility of each production site, even though there were many images in common, so this involved a considerable amount of duplicated effort and cost. It also made image quality control across editions almost impossible. Color quality and rendering variations ranged from tonal inconsistencies to severe color shifts. Both the redundant-image and color-quality problems were addressed by Colour Systems.

The company. Founded in 1987, Colour Systems was originally a prepress and repro house. But from the beginning, the firm understood that an effective media business depends on efficient digital production. Over the years, it has constantly reshaped its business to meet the printing and publishing industry's changing expectations. Colour Systems today is a premedia and data-management company because, as joint managing director and founding partner David Brin explains, "We had to recognize what our clients' needs were and come up with solutions."

The company now employs 130 people to manage production for an international client base, including Emap, Ikea and Haymarket Publishing.

Colour Systems' primary business is magazine and book reproduction. Although ICC-based color management was initially implemented for the *Reader's Digest* contract, it is now used throughout the company for all publication work.

The project. Beginning in April of last year, Colour Systems developed a Centralised Management Workflow system for prepress. It was primarily designed to facilitate the production of *Reader's Digest* by adding ICC-based color-management techniques to the company's already tight process-management controls. The project met its objectives and also yielded additional benefits for the client. According to David Brin, the Centralised Management Workflow has "taken the worry from all these countries, and they know that each of the 150-page magazines are going to look the same and be of the same high quality."

RDA works with three European magazine printers: Donnelley, in Krakow, Poland, for the German, Russian and central-European languages; Maury, in Paris, France, for the French, English and western- and southern-European languages; and Zollekofar, in Switzerland, for everything else. Profiles have been made for the presses in Krakow and Paris, but the Swiss site has not yet been profiled.

Editorial flow. Using the Centralised Management Workflow, *Reader's Digest* production sites throughout Europe can send image and page files to the Colour Systems server in London for final production. The server, also known as the Systemassets.com Internet site, manages all RDA files that have to do with the publisher's European editions. This includes library files, production files, graphics and master images.

Automatic file processing at a centralized production facility has produced substantial economies and process improvements for *Reader's Digest*, and RDA has responded by using the system more. In order to meet RDA's needs, Colour Systems is taking on more staff. Some of these people have come from *Reader's Digest* production sites, bringing typographic and language skills that Colour Systems can use to improve throughput for the multiple languages *Reader's Digest* supports.

Advertising. The Systemassets.com site is used mostly for editorial production. Separately, Colour Systems is also handling advertising production for RDA using Colour Systems' own PDF-based ad-delivery system. Colour Systems processes both international and local ads in each edition of *Reader's Digest*. Incoming advertisements are checked for compliance to *Reader's Digest's* published specification and are processed accordingly.

Colour Systems is working with the Periodical Publishers' Association (PPA) to see if this technology could be used as a standard Web gateway for all magazine-ad delivery. Although ICC-based color-management techniques are not yet fully implemented in the Colour Systems gateway, they are expected to be incorporated in the future.

About *Reader's Digest*

Readers' Digest is the flagship title of the Reader's Digest Association and the world's largest-selling magazine. Founded in 1922 and publicly traded since 1990, the Reader's Digest Association is an international magazine publisher and direct-marketing company. Although it is based in the United States, the Association has served the European market since 1938. *Reader's Digest* is published in 48 editions and 19 languages, and is available in more than 60 countries worldwide. Besides magazines, the Reader's Digest Association publishes music, videos and special-interest titles. The company is expanding its range of print-based products as well as its distribution and delivery methods to include electronic media as well as traditional print. **TSR**

The workflow

The Colour Systems contribution to the RDA's workflow begins at www.systemassets.com, a reprographics and quality-control system that is the hub of *Reader's Digest* production. It facilitates shared production among *Reader's Digest* sites and allows Colour Systems to deliver press-ready PDFs to the printing plants. Operators working on each edition access the site through a country-specific URL and user log-in.

The remote production sites can work with Systemassets.com in various ways. They can download FPO images from the Systemassets.com image library, as well as upload high-resolution scans.

Colour Systems is working on a method of profiling scans that come in from unknown sources. RGB scans can be assessed for color prior to profiling, and CMYK files can be profiled for density. Most pictures, though, are scanned by Colour Systems or come to the hub from a known color space (*i.e.*, with a profile supplied). Uploaded images are automatically profiled for final output, and a low-resolution FPO is created for placement on the page. Uploaded pages are also preflighted using Dalim's Twist technology.

Colour Systems handles all high-resolution image retouching at its London offices, uploading completed pages to the Systemassets site, from which they can be downloaded either for proofing or for output. Colour Systems relies on Dalim's Ficelle technology to manage the workflow for production tasks.

Input. Colour Systems handles most *Reader's Digest* input scans in London with two Crosfield Celsis drum scanners that have been upgraded to output RGB directly. Along with all monitors and proofers in the Colour Systems workflow, these devices are regularly calibrated (and reprofiled when required) to ensure accuracy. Scanners are calibrated monthly; proofing engines are calibrated and linearized daily.

Proofing. Responsibility for final color lies with Colour Systems, so all of the company's proofers must be able to match specific press outputs. Remote production sites

and press halls can output content proofs if they choose, but final dot proofs and on-press color accuracy are down to Colour Systems. The company has a range of proofing engines including a Digital Cromalin, several Irises and five new iProofs, with five more coming into the company shortly. All devices are profiled, and all of them can match output for each of *Reader's Digest's* profiled presses. For images with an unspecified output destination, Colour Systems uses the Digital Cromalin.

All proofers are calibrated and linearized daily, with tolerances measured using a printed control strip and densitometer. If necessary, new profiles are written. Colour Systems' Quickerproof, based on RealTime Image's Renderview technology, provides a soft-proofing

edition of the magazine, they are prepared for Maury's press profile, while if the edition is for a Russian, German or Scandinavian language edition, the transformation is to Donnelley's Krakow standard. The transformation is done either manually in Photoshop or automatically at the Systemassets server. Either way, the appropriate ICC Device Link profile ensures accurate color-data transformations.

Next steps

Currently, ICC-based color management is applied to images only, rather than to the whole page file. Eventually, Colour Systems wants to have an image, ink and print-control engine that can be used to manage color at the point of final page-processing. This would allow color management to be applied to whole pages, including all the images, text and graphic elements on the page.

The company is also looking at ways of extending its services for other *Reader's Digest* Association operations, particularly book production. Press profiling is now under way in Barcelona, where RDA prints its books. Colour Systems is also looking at asset management for its clients. Currently, the database and the production workflow are CMYK-oriented, but Colour Systems is considering moving to an RGB workflow.

Implementing a color-managed workflow has made a huge difference for Colour Systems. As David Brin sees it, "Without color management, we wouldn't have won the contract for the *Reader's Digest* editions, without which we wouldn't have got the Ikea magazine contract. It has allowed us to serve cross-border publishers." For this repro company at least, the future looks bright indeed.

Laurel Brunner

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facility for clients. It can ensure that all proofing is reasonably compatible across sites. The combination of ICC-based color management and the RTI soft-proofing utility means that everyone in the production chain can use a common proof and output to the same press profile.

Device-link profiling. Device profiling has long been a habit at Colour Systems; now the company is taking this further and working with transfer profiles or device-link profiles. The idea is to incorporate into the final color-conversion algorithms the profile data for each device in a production workflow. This technology can therefore enhance color management as color data moves through increasingly complex production workflows.

The complexity of *Reader's Digest* production requires substantial complex color processing. International editions are produced using the standard *Reader's Digest* USA press profile, and images delivered digitally to Colour Systems via Systemassets.com are automatically transformed from this standard profile. That is, if the images are for an English or French