



PRINTED PRODUCTS INNOVATION

January - February 1996
Volume 1
choice printed products inc

Welcome to our new publication Eye on Technology We recently completed our 1996 customer survey and discovered we needed to improve the way we are informing you our customers about new products and technologies. These products and technologies often lead to ideas about how printed products can help you improve your organization. After considering some different approaches, we decided that a short, fun publication would help us better communicate new technologies and product offerings. We hope you enjoy Eye on Technology and more importantly that together we can use some of these ideas and discover solutions to your organizations printing challenges.

dave clark

Short Run Color Printing

About 50% of the commercial print market is on run quantities of 5000 units or less. Runs of 100-500 account for 20% of this figure. Thanks to digital prepress advancements and the arrival of alternative printing systems, customized run quantities as short as one copy are quickly becoming a viable economic reality. This trend to smaller customized 4-color runs will continue to grow with many experts expecting growth to quadruple over the next 10 years.

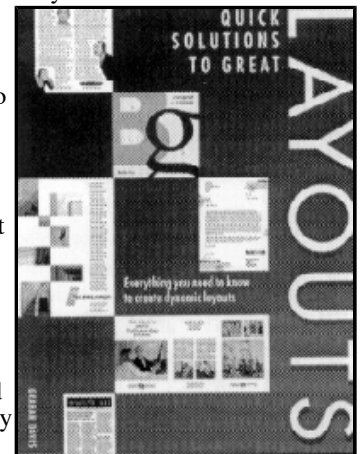
Several new products and technologies can help you with the printing of your companies projects. The solution to many printing projects especially those involving color can usually be divided into three production components: Design, Prepress, and the Output Technology. In addition one needs to determine the time you have to complete the project and the level of quality. All five of the above factors often times are interrelated and have a cost associated with them. Once you have determined your deadline, the goal is to choose the overall production process which maximizes your quality at the most favorable cost.

Design is the foundation for your print project. Often times the text and basic design can be done by the customer and then handed off to your print vendor or designer to finalize layout with additional graphics, photos and an overall pleasing look. The design process can be extremely complex and expensive with custom graphics, color photos, custom type and unique overall designs. Or, the design process can be as simple as shooting camera art provided by you the customer which involves little or no design cost for your project. More common is where a customer will furnish basic text and general ideas about a project and then ask someone else to come up with pictures, graphics, and use of color. Good designers can often times work with existing clip art or digital photos and suggest certain papers combined with use of ink colors to develop an extremely impressive design while dramatically reducing your overall cost. Many times the design portion of a project is done in house by the customer and is overlooked because of a limited budget. Remembering that the design portion of the project is the foundation of the printing project, the above way of thinking could be a penny wise but dollars foolish.

Prepress is the stage in production where projects are assembled for final print. Prepress can vary in its complexity. Prepress can be extremely limited when files are electronically assembled and saved in Postscript format and output directly from disc. A technique which involves slightly more prepress is using camera ready art which is pasted up into position and used to make printing plates. Traditional prepress for larger more complex projects can be time consuming and expensive as it usually includes scanning of pictures or illustrations, outputting film, making color proofs, and finally the making of metal plates.

Several new technologies have developed in the pre-press area which has helped in lowering production costs.

You will find two basic scanners in the marketplace today. Flatbed scanners (CCD- Charged Coupled Device) have tripled in installations over the last five years because of the ease of use, optics and above all lower costs to purchase and operate them. The drum (or PMT drum) scanner is superior to the flatbed scanners when working with high end color and image detail. These scanners are much more expensive and require trained technicians to operate them but most experts agree that the drum scanners offer the best color density when printing high quality 4- color work. Additional methods for capturing images are also emerging



with use of Photo-CD (where scanned images are recorded on compact disc), and digital or filmless cameras (cameras which record images digital data directly on disc). Both methods offer exciting potential.

As new processes and devices evolve, new standards for output of data and images are rapidly developing. New ways of proofing have emerged in the desktop market. High resolution laser printers (both color and grayscale), ink jet, and table top dye-sublimation systems are used extensively for the short run medium quality print market. However for the high end color work, contact, press or matchprint proofs are still the proof of choice as this technology does the best job of simulating what the printed piece will look like on press.

In addition to proofing, one needs to also output paper or film which will be used to make polyester plates or metal plates depending on how critical registration of color is. Film and metal plates are more expensive but allow for better registration and are critical in printing 4-color process work. Laser outputs and polyester plates offer lower costs and can be used for most 1-3 color print jobs.

Production options for printing your particular project have grown. Each option or technology has built in advantages and disadvantages based on turnaround time, quality, quantity, detail of design and the flexibility for variable data.

Digital Color Copiers-The image can be taken electronically from disc or reproduced from paper or film original. This production option involves very little prepress other than postscript file creation. Color copies are best suited for producing medium quality of short to medium run quantities with several originals. Turnaround time usually 24 hours. Project examples might be transparencies customized customer proposals, meeting handouts, public relations/investor information.

Short Run 4-color on traditional 2 color press-Lower cost on prepress side as well as lower press setups. Laser outputs and onyx plates can be used to lower costs depending on registration of colors. Negatives and metal plates should be used for tight registration or 4-color process work. A traditional 2 color press is a good method for producing medium to high quality short run color work. Turnaround time is usually 2-3 days after artwork approval. Project examples include brochures, newsletters, post cards, direct mail, catalogs, pricers.

Indigo's E-Print 1000-is a 4-color direct digital press that prints 800 dpi on a variety of paper stocks on sheet sizes up to 11 x 17" full bleeds. Prepress is minimal as an actual sample is provided to proof directly off press and on actual paper. No expensive matchprint proofs, plates or negatives are needed. The press is an electrophotographic system using laser imaging on one set of impression cylinders that lay down each color of ink in sequential order. This technology is best suited for medium to high quality work of 0-500 quantity depending on the size of the finished piece. The E-Print 1000 can handle tight registration and produces good picture image quality and has ability to merge in variable data in the case of a direct mail piece. Projects include 4-color process business cards, brochures, post cards, menus, covers, price books, catalogs, signs, and point of purchase displays.

Indigo Ominus one Shot Color-is a 4-color direct digital press that prints 800 dpi on a variety of paper stocks on sheet sizes up to 11 x 17" full bleeds. The advantages and disadvantages are the same as the E-Print 1000 but can Ominus can run on a wider variety of paper and film stocks including many label materials used for product labeling, packaging and decorative printing.

Heidelberg GTO-DI & Quickmaster DI- both can take PostScript files directly from disc and utilize laser diodes to image 4 printing units at resolutions at 1270-2540 dpi with 150-200 line screen. These presses are waterless offset and are geared to high quality short run 4-5 color work. The GTO does finishing work in-line with both presses best suited for runs of 200-5000 depending on the finished size. Projects include posters, brochures, ad reprints, direct mail, and catalogs.

Short run color printing offers you an opportunity to apply state of the art technology that will enable you to meet your organizations printing challenges. Remember to consider all three of the production components prior to deciding which one best fits your quality and delivery requirements.

TEST YOUR MEMORY

- What are the three major production components you should evaluate when you look at your next short run color print project?
- True or False-Good design work is easy to do because most every one has a computer therefore little time or expense should be budgeted for this none essential production component?
- I need color transparencies made. What production option should I choose?
- I need to scan high quality photos with great detail. Which type of scanner should I use?

We hope this first issue has been informative and provided you with some insight on how you might look to improve your next printing project. We have only briefly explained some of the newer technologies and would welcome the opportunity to answer any further questions or assist you in any of your printed projects needs. Call us today!

(952) 942-0045

[January - February 1996 Volume 1](#) / [March-April 1997 Volume 2](#) / [May-June 1997 Volume 3](#) / [July-August 1997 Volume 4](#) / [September - October 1997 Volume 5](#) / [January - February 1998 Volume 6](#) / [April - June 1998 - Volume 7](#) /

[Products & Services](#) [Label Details](#) [Home Page](#) [Request for Label Pricing](#) [Request for Printed Product Pricing](#) [Label Order Form](#)
