

ANRO INC.
PRINT & DIGITAL COMMUNICATIONS

Guide to
Color Digital
Printing



800.355.2676 • ANRO.COM

WHAT IS DIGITAL PRINTING?

Digital printing eliminates the conventional steps between prepress and press. Graphic files prepared on a desktop computer are sent directly to a digital press without plates or extensive make-readies, or the associated time and expense.

Digital printing also enables the use of variable data to customize text, images and layout in individual pieces within a single run, producing truly personalized documents.

DESIGN CONSIDERATIONS

There are a number of design considerations unique to digital printing that can impact the quality of your finished piece. The following guidelines will assist you in creating documents to be produced on ANRO's color digital presses.



Software

Adobe InDesign is the preferred choice for all jobs, including variable data jobs. Saving your document as a PDF file is the next best alternative.

If the above options are unavailable or inconvenient, we can make the necessary conversions for you. ANRO's staff is experienced and equipped with all popular graphic applications on both Mac and PC platforms.

Document Construction

Pages should be built to the actual, finished size. There's no need to place the document within a larger sheet, or to indicate crop marks.

Documents should be designed using single pages. ANRO will perform all necessary impositions for multi-page jobs.

Page Size

Maximum print area: 11.7" x 17.2"

Maximum paper size supported: 12" x 18"

Allow 1/8" bleed for off-line trimming if full bleed is required.

Fonts

OpenType fonts (OTF) are best for both Mac and PC jobs; PostScript fonts are a close second. TrueType fonts (TTF) can also be used.

If using PostScript fonts in a PC application, remember to include both the .pfm and .pfb forms of the font when sending your files to ANRO.

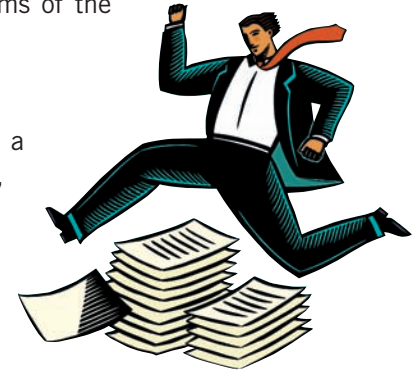
Stock choices

ANRO's HP Indigo presses accommodate a wide variety of paper and non-paper stocks, including:

- Coated and uncoated papers.
- Weights from 60 to 120 lb. book, text, and cover.
- Specialty substrates from 2 to 18 mil (including plastic cards) and 24 pt board.
- Non-paper stocks including: foils, polyester, polypropylene, polycarbonate, pressure-sensitive labels, PVC, styrene, Teslin®, transfer material, and transparencies.

Matte ink

ANRO's HP Indigo presses are equipped with spot matte coating capability for subtle, tone-on-tone highlights.



If you have design or technical questions, we encourage you to contact our prepress professionals at 800.355.2676, or send an inquiry via email to PSkowron@ANRO.com.

DESIGNER COLORS

At ANRO, digital printing doesn't require the sacrifice of vivid colors, subtle distinctions in hue, or the faithful reproduction of corporate PMS standards. ANRO's HP Indigo digital presses use liquid inks, rather than toners, to deliver better, brighter, and more durable color.

Although its spectrum is broad, four-color process cannot perfectly reproduce all colors. Just as in conventional offset printing, spot colors – including PMS matches – can be premixed and then applied on ANRO's digital presses.

Colors that benefit the most from using premixed digital inks include Green, Teal, Deep Blue, Violet, Purple, Orange, and Warm Yellow. Bright colors are also easier to match than dull.

ANRO prepares digital spot colors by mixing precise amounts of cyan, magenta, yellow and black (the four inks used in process color), plus orange, reflex blue, green and violet. The exact ratios are computed, blended, measured, and adjusted using spectrophotometry. In the few cases where an exact PMS standard is not mathematically possible, we can still achieve a match that is far closer than the process-built match would be.

VARIABLE DATA PRINTING

Variable data printing enables one-to-one marketing with printed materials. Using a single document designed as a template, variable elements – text, graphics or images – within the document are tailored to each recipient. The appropriate image or wording for each member of the target audience is identified in a database. When married to the design template, this results in a printed piece unique to each recipient.

Variable data printing increases both the relevancy and impact of direct marketing and other communication programs. Each piece looks like it was printed specifically for the recipient – because it was!



HOW TO PREPARE A VARIABLE DATA JOB

Design template. A variable data job is designed just like other print projects, by using a standard graphic software package (preferably Adobe InDesign). Whenever a variable element is needed, simply place one example of the possible text or graphic in the design. When finished, print a hardcopy and circle all the variable elements, labeling each with a descriptive name.

Database. Each of the actual variable elements (text or names of image files) is stored within a database or spreadsheet. Each column will represent a different variable field. The first row of the database is used to title the columns with the same names you marked on the hardcopy of your piece. Each row after the title row represents a unique finished document.

Document assembly. The document file, database, digital images, fonts and a hardcopy of the piece are then sent to ANRO. We will link your design template to the database and network both files to one of our digital presses. Pages will be assembled on the fly as variable elements from each row are placed within the document file and printed.

Application file



Database of text and graphics

FIRST	LAST	COMPANY	HAND PHOTO
Veronica	Brown	Axiom Design's	Female.ep
Lauren	Wittenmy	Franklin Supply's	Female.ep
George	Singer	Montgomery's	Male.eps
Maria	Potemski	Triangle	Female.ep
Henry	Johnson	Accel Inc.'s	Male.eps

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Personalized printed documents

DESIGN TIPS FOR VARIABLE DATA PRINTING

- Adobe InDesign is the preferred application for the creation of documents containing variable text or images.
- Variable text can be inserted within paragraphs and will rewrap automatically. Variable text can also be placed using any of the text tools, including a curved path. OpenType, PostScript and TrueType fonts can be used with variable text. Use whole point sizes.
- When designing your document, choose one example of the possible text or images to place in each variable field.
- When designing a piece that includes variable text, use the longest example to make certain it fits within the given text box.



- Images that will be used in the same variable field must be the same size (height and width), and their files should use the same format and the identical file extension (.eps, .tif, .jpg, etc.). Variable images must be centered or placed at “zero, zero” for the xy coordinate inside the picture box.
- When using variable images with overlapping text, make certain the text can be read over each possible image.
- When finished with the design, print a hardcopy of your document, circle the variable fields, and give each a descriptive name. Use these names in the database to title each column.

- You can choose almost any database format or application you desire. Comma delimited, space delimited, and ASCII text are all acceptable formats. Spreadsheet applications such as Excel, or any Mac or PC application with the ability to export files (nearly all of them) work well.
- The same database can contain both variable text and image names.
- Each row in the database (except for the title row) represents a different recipient and will result in a different finished piece.
- For variable text, the cells contain the actual text, but the font and format is set in Adobe InDesign, not the database.
- For variable images, the cells should contain the file names of each possible image. Image names are case sensitive.

SENDING DIGITAL FILES TO ANRO

- Always supply your document in its native application format.
- Send all supporting files with the document file, including fonts, images, and databases. If using InDesign, package your file, which will gather fonts, images and layout. Include a hardcopy of the document with comments. If it's a variable data project, circle and label the variable elements on the hardcopy.
- Files can be emailed to Print@ANRO.com. Although capacity is unlimited at our end, your email system may limit the size of attachments that you can send (the maximum size is typically 5 MB).
- Small files (less than 5 MB) can also be sent through our website at ANRO.com. Simply follow the Customer Service link and click on “File Upload,” then fill in the relevant information and attach the file using the “Browse” button. Dedicated T-1 lines will speed the process at our end.
- Very large files can be easily transferred to our FTP site using any popular FTP client and accessing our FTP site at ftp.ANRO.com. Contact your CSR for a secure username and password.
- Files may also be sent on physical media. ANRO supports all popular media, including CD-ROM and DVD.
- If CDs or other physical media are used, please write the name of your company, the individual to contact, and the job's title or reference number on the label. A printed list of the contents of each disk is particularly helpful.



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we encourage you to contact our prepress professionals
at 800.355.2676, or send an inquiry via email
to PSkowron@ANRO.com.

DIGITAL PRINTING AT ANRO

With four six-color HP Indigo digital presses and high-speed black and white publishing systems in place, ANRO is equipped to meet all of your digital printing needs. Digital printing from ANRO offers you short-run convenience with quality approaching conventional offset printing. Add to that ANRO's variable data capabilities and you've got an endless array of options for producing high-quality, high-impact marketing pieces.



Complete Print Management Solutions

ANRO Inc. is a full-service commercial printer offering turnkey print management solutions since 1953. Our comprehensive list of graphic communication services include:

- Commercial printing
 - Sheetfed offset
 - Digital & variable data
 - Dimensional & package
- Prepress
- Bindery & finishing
- Fulfillment & inventory
- Direct mail
- Digital communication services
 - Digital asset management
 - Online print management programs
 - Email & text messaging broadcasts
 - PURLs (personalized landing pages)



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