

# Digital Output Specifications for Offset and Gravure Printing

Quad/Imaging utilizes a 100% digital workflow for all prepress processes, from image capture to offset platemaking and gravure cylinder engraving. Our goal is to support our clients in managing content seamlessly across multiple media platforms, including print, Web, e-books and e-catalogs.

Our all-digital workflows are based on optimized PDF files. All files undergo an “optimization” conversion to create streamlined PDF files compatible with any prepress workflow and output device.

## Preferred File Formats for Offset and Gravure

**PDF/X-1a:2001 that has been Optimized Plate-Ready**  
(Nexus, Dalim, Prinergy)

- PDF/X-1a:2001—please see “Creating PDFs for Production at Quad/Graphics” at [www.QG.com](http://www.QG.com) > Products & Services > Imaging > Imaging Specifications
- CMYK, DeviceN CMYK or Grayscale
- Downsample images to 300 ppi
- Files trapped/overprinting set
- Fonts embedded/subsetted
- No halftone information and no OPI comments

TIFF/IT (copydot files not accepted)

### CEPS CT, LW

- Continuous tone images should be at 2x the line screen or greater (266 ppi or greater is high-res for 133 line screen).
- Include executed composite CT file (res 12,12 dots per mm), executed composite LW file (res 72, 72 dots per mm) and final layout (FLYT) file, with consistent page origin and size.
- CT and LW offset should be 0,0.
- Black text should be merged with the linework (LW) and version linework should be linked.
- For gravure, the LW color palette must not exceed 256 color areas.

## Other Preferred Formats for Offset Only

### DCS Bitmap, DCS2

- We also accept DCS Bitmap (copydot) and DCS2 files for offset printing only. DCS2 files should be made with raster or screen bitmap data. QuarkXPress files saved as DCS2 are NOT acceptable.
- All DCS Bitmap and DCS2 file formats must be tested BEFORE production begins.

## Other Accepted File Formats

The following file formats require testing before production begins and will incur additional costs.

### PDF

PDF (4/color composite) Version 1.3 (Acrobat 4) is preferred. The printing industry standard PDF/X-1a is based on the 1.3 specification. Please supply either PDF version 1.3 files or already flattened PDFs if you are using Acrobat 5 and above or exporting to PDF with InDesign. Please see PDF Flattening information at: [www.QG.com](http://www.QG.com) > Products & Services > Imaging > Imaging Specifications.

### PostScript (4/color composite)

#### Native applications

Quad/Imaging accepts current versions of QuarkXPress up to version 7 and Adobe InDesign up to CS3. Native QuarkXPress and InDesign pages are processed in a traditional prepress workflow. Proofs are then forwarded to the client for approval.

Avoid supplying vector art programs such as Adobe Illustrator or Macromedia Freehand as final page files. Instead, save the art file as .ai or .eps and import it into InDesign or Quark. If you must supply vector art application files, please discuss it first with your Quad ISR; additional charges may apply.

For more information about preparing QuarkXpress and InDesign files for prepress production, please refer to “Guidelines for Preparing Digital Files” at:

[www.QG.com](http://www.QG.com) > Products & Services > Imaging > Imaging Specifications.

### Naming Conventions

Please name Offset and Gravure files using a maximum of 14 characters, excluding the file extension. Name your files to clearly identify client name and folio number. Please name files with these points in mind:

- Uppercase characters are preferred
- Use only alpha numeric characters within file names.  
No "special characters" (i.e. -, .?/\*\({}>=#:") should be used.

If you desire a naming convention that does not conform to the following example, please contact your Imaging Service Representative to discuss.

Naming Convention Example: **LP001\_\_42288.job**

**LP 001 \_ \_ 42288 .job**

**1 2 3 4 5 6**

1 = First two letters of job name

2 = Three-digit folio (up to 4 digits for books over 999 pages)

3 & 4 = Reserved for version numbers (no versions in example)

5 = Last 5 digits of job #

6 = Suffix such as .job, .eps, .pdf

### Network Options and File Transfer

In today's environment of connectivity, Quad/Graphics maintains a wide variety of network options for our clients. Transmitting digital page files to Quad/Imaging via the Internet or a Wide Area Network connection saves time and supports late content changes. Our Quad/Disk file transfer Smartool, accessible at [Quaddisk.QG.com](http://Quaddisk.QG.com), enables you to send and receive low-res or high-res files with ease on either a Mac or PC. Using Quad/Disk, there is no need to compress files prior to sending them.

Please discuss file transfers with us before page-file production begins. We want to be clear on the file transfer method to be used, which Imaging facility will receive data, etc. Please contact your Customer Service Representative or Salesperson.

NOTE: Internet-based client Smartools require clients to have an Internet connection of at least 768K.

### Network Options

- Internet: Quad/Graphics maintains multiple DS3 lines to the Internet for Internet-based FTP or Quad/Disk transfers, and client Smartool access. Quad/Net is an AFP share accessible through the Internet. NOTE: Connection speeds on the Internet can vary.
- WAM!NET: Send files via WAM!NET digital data network (NetCo must turn on the connection addressing).
- Custom T1 or DS3 (scalable to volume): Connect directly to the Quad/Net or have a connection established between your network and ours. Please note that connections of this nature will require lead times ranging from 30 to 90 days, depending on design and availability.

### Non-Network File Transfer

If you do not use one of the network file transfer options described above, Quad/Imaging accepts files on CD-ROM and DVD.

### Total Area Coverage Based on Paper Stock

The basis weight and type of paper stock to be used in the final printed piece will directly affect the amount of UCR at the separation stage.

UCR is expressed and checked in the final file as total area coverage, which is the sum of the four dot percentages measured in the same spot of the densest part of the separation and larger than the size of a quarter.

- Uncoated and newsprint stocks:  
240% total area coverage maximum.
- Supercalendered stock: 260% maximum.
- Lightweight coated stock: 280-300% maximum.
- Heavier coated stock (50 lb. and above): SWOP requires a maximum of 300% and 325% for small image areas carrying no significant detail.

NOTE: If images will be reproduced by both Offset and Gravure, then they should adhere to SWOP, which is 300%.

### Contact Us

If you have concerns about any of these guidelines, please contact your Imaging Service Representative. This will prevent time delays and additional costs.

These guidelines do not take into account all the special situations that can occur with prepress production with our customers. Quad/Imaging endeavors to be flexible, so if you require special arrangements or procedures in order to submit your files, please contact your Quad/Graphics Imaging Service Representative.

For more information about Quad/Graphics and Quad/Imaging, please visit [www.QG.com](http://www.QG.com).