

Display Graphics Detail Set-up Guide

Technical Data Sheet

The information below is designed to help you set up your files for output to the LightJet and Inkjet printers. Using these guidelines will help ensure higher quality and fewer delays in the production of your job.

Page Set-up

Files should be set up either at 100% of final print size or at a scale proportional to the final size (i.e. 1/2 size or 1/4 size). When at all possible try to keep it at 100% or 1/2 size. Never use page sizes less than 25% of finished size. Quark files set up at less than 1/4 size will have to be reconstructed and are subject to additional charges.

It is important that you include crop marks and 1/4" bleed in all your files.

Fonts

To avoid problems with fonts, most programs allow you to create outlines from fonts, transforming fonts to objects. Please refer to your program manual for instructions. If the program you have chosen does not allow this conversion, then you must supply the printer and screen fonts that are used in your documents.

Be sure to pay special attention to font use if you embed one file in another file. Fonts in embedded files must be either outlined or you must enclose those fonts also. If the font is not enclosed the preview will look fine on the screen, but the file will not print correctly.

Keep in mind that many fonts with the same name have different versions, and that PC and Mac fonts are different. If you do not supply fonts it may substitute other fonts and change the appearance of your document.

Type in a raster image may result in jagged lines and may not be sharp. When using type in a layout we recommend you place your raster file in a page layout program and place your type within the document.

Using Illustrator 9, 10, & CS

Illustrator 9, 10, and CS files must be flattened. See Robin TDS026 "Using Illustrator" for more information.

Scanning & Resolutions

Scanning specifications for images to be placed into documents should be determined after you have decided on the final layout and size of the images for each graphic. Images that are to be placed within a document should be scanned to the dimensions (height and width) of the finished size. It is always best to set files up at 100% of output size. The resolution required depends greatly on the viewing distance. Since larger prints are viewed at greater distances, it is not necessary to use the same ppi (dpi) as for smaller prints. Use the chart below as a general guide. For more information on scan file sizes see the Robin Technical Data sheet "Scan Resolution Chart"

Image Box Size

Size	16x20	24x36	40x50	48x96
ppi	305	175	150	100

ppi = Pixels per inch

Use an in-between ppi for sizes not listed.

Do not use ppi greater than 305 or less than 100.

Using resolutions less than this can cause the print to look unsharp and have jagged lines. Using resolutions significantly higher than this can result in very large files that are difficult to handle and will produce only marginally better results.

The maximum resolution of the LightJet is 305. Do not use resolutions higher than that.

Scan Quality & Color Reproduction

Before you spend a lot of time putting a file together, make sure your scan is appropriate for the intended job. There are many variables that affect the color and overall quality of a scan: the caliber of the equipment, the skill of the person doing the scan, the intended purpose of the scan, and the color management system being used. These variables can make it difficult to match the original and unless your monitor is calibrated to the output device, you cannot accurately judge color when viewing your monitor. For images with critical color, we recommend you "place" a low-resolution scan for size and position, and let us scan the original to insert into the document. If you need to manipulate the file, we can return the file to you by courier or FTP and you can then manipulate the file as necessary. As long as you don't change the color, density, or contrast, your output color will be as close to the original as can be

achieved. Images scanned for output to the LightJet and Inkjet printers should be in Adobe RGB color space.

If you are using scans from sources other than Robin, keep the following in mind:

- Scans should be saved as Adobe RGB. Scans done in CMYK for offset printing often do not convert well to RGB for digital photo output. If you must use a CMYK scan it is often best for us to convert it. Please indicate on the job instructions that this needs to be done. There is an additional charge for converting CMYK scans.
- Unless your monitor is calibrated to the intended source, you cannot assume the output will match your monitor. To check your scan, probe the neutral colors to make sure they are neutral. Also check your white and black points. Suggested values are 245,245,245 for white and 5,5,5 for black.

See Robin Technical Data Sheet TDS009 "Color Calibration" for more information on how to calibrate your monitor.

- Avoid over-sharpening of scans. If you go too far it will cause artifacts, posterization, blocking up of highlights and shadows, and halo effects. Once these are present we cannot correct them back to normal.
- If your scans need corrections, they are available on a time and materials basis. However, correcting problems in a scan can often cost more than a new scan. Be sure you are starting with a good scan before you invest significant time and money in a job that does not fulfill your expectations.

Spot Color Matching and Using Pantone Colors

The Pantone Color Matching system is designed for use by printers using CMYK on a 4-color press. If these colors are selected in a document they will reproduce differently using an RGB photographic process. We use a calibrated color management system that will minimize the difference, but due to the nature of the two mediums they can never be identical.

We offer three methods of color matching:

1. Select the Pantone color and our color matching system swaps the values automatically to give the closest color match. Our color management system will only adjust colors specified as Pantone Process Coated colors. It will not correct any colors specified as RGB or CMYK values.

2. Give us a sample of the color you would like matched and we will do a color swap using the closest color from the color chart. There is a \$10 charge per color for this service.
3. If you need more precise color than the color swap, we offer a color match. For this we need a sample and we will test colors using a color mix to achieve the closest color possible. There is a \$40 charge per color for this service.

Other things to keep in mind when using spot colors:

- It is extremely hard to make neutral colors match if part of the job is done at a later time.
- If you use Pantone colors when doing blends, the software creates CMYK values for the intermediate color steps. When the color management software is applied it corrects only the Pantone colors, but does not affect the CMYK values. We recommend that blends be done in Photoshop to avoid banding and color shifts.
- Spot colors used in PhotoShop will not match spot colors used in vector based layout programs, such as Quark and Illustrator.

Lighting Conditions

You must know the final lighting conditions in which your prints will be viewed. This will make a difference in the way we output your file. It is especially critical for backlit display transparencies. Colors will appear different with fluorescent as opposed to tungsten lighting. It is very important that you specify which lighting source you will use for viewing.

What to Send

Please make sure that hard copies are included with your job. This will ensure that your final prints will be exactly as you intended. **If hard copies are not supplied, we will generate them from the supplied documents and fax a copy to you for approval. Work will not continue on the job until we receive an approval.**

Include only the files that are needed in the production of your job. Additional files can create confusion and result in the wrong files being printed.

- The main document should be saved in its native format.
- All illustrations and vector imports into should be saved as .eps files.
- PhotoShop files used as imports files should be flattened and saved as .eps files. Do not use LZW compression.

- Make sure that all files inserted into a document have been updated and use the last saved file.
- If you are using embedded objects within documents, please be aware that we cannot make any corrections to the embedded object. Should some change be required you will have to make those changes and submit a new file.

Digital File Submission Forms

Digital file submission forms are intended to serve as a guide for you to make sure you send us a file that will print problem-free and to provide us with critical information. Using these forms will enable us to know immediately whether all files are present and if they are adequate for the intended output. This form serves as a valuable checklist to ensure your job does not get delayed or incur additional charges as a result of unexpected problems. Forms are available at www.RobinImaging.com.

Collecting Files for Output

Once you have your document layout complete, all necessary files need to be collected onto a disk. There are several ways of doing this, and all major layout programs will do most of the work for you. Keep in mind that only a few will also collect all the fonts that have been used in your document. A report can be generated along with this procedure that will list all fonts used in the production of your document. These utilities will copy all the files used in the production of your job, and put them onto the disk you specify. The advantage to using this option is that all files

used in your document will be copied and any unnecessary files will not. Once you have collected these files, the program will generate a "Report" file. This is a basic text file with all the information about your document. These reports should be printed and sent in with your job. It will immediately indicate the nature of your files and whether or not they are suitable for the intended output. This will save time in the production of your job, since we will not have to go through and check all files for problems. Some programs will only generate a report. You can use this report to make sure that you are sending in only the files needed for your job. Duplicate or unused files cause problems and delays in the production of jobs.

If you prefer to use a stand-alone program to collect your files, one of the best on the market is Markzware Flightcheck Collect. This program is designed for document creators at all levels. It will preflight all major desktop publishing files such as QuarkXpress, Illustrator, PhotoShop and Freehand. Its simple interface will assist you in checking digital documents for over 150 potential problems. With user definable preferences you can have it find problems with colors, fonts and images. It will collect the document, images and fonts including both screen and printer fonts. Once the job is completed, the user can compress the file as a self-extracting archive or BinHex it for easy transmission over the Internet. Find out more about this program by logging onto: www.markzware.com.