



# Preflighting


## *f o n t s*

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| Missing screen font  | If a screen font is missing, text may reflow or print incorrectly.   |
| Missing printer font   | If a printer font is missing, it may be substituted for Courier or be output as a bitmap version. However, if a font with the same name is present on the RIP, that font may be used but with sometimes undesirable results. |
| Using TrueType fonts   | TrueType fonts may not print to a “Postscript Only” device such as an imagesetter RIP.   |
| Using Multiple Master (MM) fonts   | MM fonts can cause an output error on devices that cannot handle fonts larger than 300k. Avoid using multiple master fonts if possible.  |
| Font has been menu styled as “outline”   | On high resolution devices, the outline can become very thin and if the font is screened or has two or more colors, misregistration is very noticeable.  |
| Font has been menu styled as “shadow”  | Shadows generated from layout software generally look good on low-resolution devices. However, high-resolution devices tend to lighten the shadow, possibly outputting an undesirable effect.                                |
| Font has been menu styled using “bold” or “italic” but the corresponding printer font is missing                     | The result of a missing bold or italic font can sometimes yield unexpected results such as Helvetica Light Bold invoking Helvetica Black. If at all possible, keep the menu style as “plain” and only use a listed font.     |
| Font sizes below 5 points  | A small point size may reproduced badly on a press and may be difficult to read.   |
| Font size too small for composite colors   | A small point size with colored screen tints may reproduce badly. When using colors on font faces, try to keep the point size to 8 or more. Misregistration can render the type unreadable.                                  |
| Font only used in an unused style sheet  | Although this has no impact on the printability of the job, it can sometimes be a stumbling block when the file is sent to the RIP. Assign a common font, such as Helvetica, to the “normal” style sheet.                    |
| Font only used on a Master Page  | Missing fonts on regular pages <i>and</i> Master pages will be listed upon opening the document. Although not a serious problem, it can delay the output of the job.   |
| <i>p i c t u r e   b o x e s</i>  |  |
| Picture located on the pasteboard  | During output, the picture will not be printed. However, it may add colors to the document’s color palette that may not be used.   |
| Picture only used on a Master page   | A picture only used on the Master page will not print. It will show up in the “Picture Usage...” dialog and may also add unneeded colors to the palette.   |
| Pictures set to suppress on output   | Whether intentionally or accidentally, the preflight technician or operator won’t know if the picture was meant to print or not. This will cause a delay in the output of the job.   |
| The effective resolution of a picture is too low   | If the resolution of a grayscale or color picture after scaling in Quark is set less than 1.5 times the line screen, pixelation may be prominent and the picture will appear jagged.   |

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| The effective resolution of a picture is too high  | If the resolution of a grayscale or color picture after scaling in Quark is set more than 2.5 times the line screen, trapping, RIPping and imaging of the job may take longer especially if there a lot of pictures. Excess resolution does not result in an improvement in quality. |
| The effective resolution of a bitmap is too low or too high  | If the resolution of a bitmap picture after scaling in Quark is set below 600 pixels per inch (ppi), the picture may appear jagged. If the resolution is set above 1200, the job may take longer to image.   |
| Style or contrast applied to a picture   | Style and contrast settings tend to yield different results with different RIPs. If possible, modify pictures in a program like Photoshop.   |
| Picture box rotated or skewed  | The rotation and skewing of an image almost doubles the time it takes to output. Rotate and skew images in Photoshop or other image editor.  |
| A picture is flipped horizontally or vertically  | Although this action will process in most RIPs as a link, some OPI servers will not process the image.   |
| X and Y scaling differs  | If a picture has been scaled disproportionately (generally more than 5%), it may affect the picture quality or may cause its resolution to be too low in one direction.  |
| EPS heavily cropped  | When an EPS file is linked to a document, the entire file is sent to the RIP regardless or how much of it is cropped. In most cases this does not pose a problem but if there are numerous heavily cropped EPS files, output time can increase.                                      |
| Picture box set to "none" (TIF/EPS)  | This is a problem if the picture box contains color or grayscale TIFs or an EPS that doesn't have have a clipping path. TIF and EPS files without clipping paths may output with pixelated edges, especially in the diagonal elements of a image.                                    |
| <i>p i c t u r e   f i l e s</i>  |  |
| Incorrect file formats   | File formats other than TIF, EPS, BMP and DCS are not recommended.   |
| Missing pictures   | Missing pictures will print as low-resolution previews. Use the "Collect for out..." command to gather all necessary elements of the document.   |
| Modified picture   | Sometimes images will be modified but not updated in Quark. Make sure the image is updated and the file is the desired one for output.   |
| Compressed picture   | LZW compressed TIFs can cause delays or errors on Postscript RIPs. EPS files that have embedded JPGs will cause Level 1 RIPs to fail.  |
| RGB TIFs   | Most RIPs will accept an RGB TIF but may crash others. Also, RGB TIFs that are converted in the RIP may alter the color and contrast of an image. It is recommended that grayscale or CMYK TIFs be used when outputting to high-resolution devices.                                  |
| Picture saved with custom transfer function  | Transfer curves will alter the output of a picture. In some RIPs, the curves are ignored. In either case, it is recommended that transfer functions not be saved with the picture.   |
| Picture saved with custom line screen  | Most RIPs are passive to line screening and will allow that image to be output at the saved screen value. Image differences may occur.   |

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| TIF is saved with extra channels                            | This can cause some RIPs to fail, most won't. In general, document originators should remove all extra data from pictures that are ready for output.   |
| Picture box with a background color contains a TIF          | Applying color to a picture box behind a TIF can cause some OPI servers and RIPs to fail. Other output devices may print the job with an extra color or may prevent proper trapping. Apply white behind a TIF.   |
| <i>c o l o r s</i>  |   |
| Colors have same name but different values                  | Rename the color in the document or vector file.   |
| Colors have different names but same values                 | Either delete the second color and assign to the first color or assign the second color a different value.   |
| Total ink coverage is greater than 360 percent              | The ink coverage limitation for most presses is 360% and most trapping software will begin undercolor removal (UCR) and gray component replacement (GCR) at 300%.  |
| The color "registration" is used in a printing element      | "Registration" is meant to be used for items that need to print on all plates. Usually, this is used for registration marks. It is sometimes mistaken for Black.   |
| RGB colors are used in a four-color document                | RGB colors will output different than they appear on the screen. Also, some older RIPs do not have RGB translation, causing the RIP to fail.   |
| CMYK color used in a grayscale document                     | If the color contains percentages of black, a screen may appear where a solid color is desired. Use only black or a percentage of black for grayscale output.  |
| Indexed color mode image is used in a document              | Most indexed color images are from sources like word processor clip art collections and web graphics. Even if the image is converted to CMYK, only the indexed colors will be printed.   |
| A TIF is colorized in the document                          | Applying color to a bitmap (1-bit) or grayscale color mode TIF can cause some OPI servers and RIPs to fail, or on some systems, the picture will not be colorized. Also, the colorized TIF may have unexpected hue, saturation or lightness when output. |
| A frame or rule is set to "hairline"                        | On some imagesetters, the "hairline" setting may be too thin to reproduce properly. Use .25 point instead.   |
| A frame or rule is below 2 points with more than two colors | Misregistration of as little as .5 point can produce discoloring and or widening of a thin rule when used with separated colors.   |

# Preflighting

## *p r e f e r e n c e s*

- Image file types: TIF, EPS, DCS and BMP (conditional use)
- TIF generation Any program or device that produces Mac or PC TIFs.  
Flatten the image.  
Remove extra channels and unneeded paths.  
300 dpi (except for FPO images).
- EPS generation Preferably from Freehand 8 or earlier or Illustrator 8 or earlier.  
Include the original file as well as the EPS whenever possible.  
300 dpi.  
CMYK or Pantone coated when using color.  
Avoid embedding bitmap TIFs inside an EPS.
- DCS generation Any program or device that produces Mac or PC DCS files.  
ColorSync and other calibration methods have all but eliminated the need for the large, five-file DCS files.  
300 dpi.  
CMYK only.
- Page layout: Quark 4 or earlier.  
Pagemaker 6.5 or earlier.  
Set page to trim size.  
Allow 1/4 inch bleed.  
Avoid trapping in Quark.  
Avoid using plug-ins that would be required for output.  
Always include Type1 Postscript fonts.  
Always include images used in the document.