# Images Category

The Images category offers you a way to ensure that the images placed in your document are desirable and can be acceptably printed, and is divided into Type, Mode, File Status, Image Box, Contents and Resolution controls.

## Type Controls

Check the desired picture Type boxes for FlightCheck to alert you when any image is of that type. For example, if you do not want to use any JPEG encoded images, then you should check the JPEG box. The item "Other" represents any other image type which is not listed.

## Mode Controls

Check the desired picture Mode boxes for which you want to be alerted. For example, if you do not want any RGB images, then check the RGB box.

# **File Status Controls**

Check the Missing box for FlightCheck to alert you when any image file is missing. This obvious problem often results in the application sending the low-resolution preview of the image to the printer if the original source file containing the high-resolution data cannot be located.

Check the Modified box to be alerted when any image file's last modified date does not match the date of the link data saved within the document.

Check the Stored box for FlightCheck to alert you when an image is embedded within your document file. In the case of a PageMaker document or an EPSF image which contains an image, the embedded image aids in guaranteeing the document can be printed, seeing how the image cannot possibly be considered "missing". However, new problems could arise if for some reason the Service Bureau needs to edit the image, they may have a difficult time extracting the image out of the document file.

Check the Not Included box in order to have FlightCheck alert you when an EPSF file contains only a pathname reference to another image. For example, while inside an application such as Illustrator you can place an image and when saving the document as an EPSF you can elect to "not include" the placed image. This is acceptable for Illustrator, but if you then place the EPSF on a QuarkXPress document page, you will not be able to print the image because the printing device will know nothing about the file system or how to locate the additional image.

Check the Nested box for FlightCheck to alert you when an EPSF image contains another image. Similar to the "stored" function, this is not always considered a real problem, other than it is sometimes impossible to be able to extract and edit the embedded image, but the potential problems do in fact exist. This is compounded by the fact that when an image within an image gets into multiple layers (called "plys"), processing time increases, and in extreme cases can cause the output device to bog down or run out of memory (similar to problems encountered when "grouping" too many objects).

#### Encoding Controls

Check either the ASCII or the Binary box to be alerted when an image has its pixel data encoded with type.

Check either the LZW or JPEG boxes if you want to be alerted if any image has been compressed as LZW or JPEG. While most output devices can support LZW compression, some cannot support JPEG.

#### Image Box Controls

Check the Suppressed (also called "Non- Printing") box to be alerted when any image or picture box has been suppressed from printing.

Check the Off the Page box to be alerted when any image is outside the printable area of the page (or is on the pasteboard).

You can use the Fill "None" pop-up menu to select which specific images you want checked by

FlightCheck that reside in picture boxes containing a background fill of the special transparency color "None". Note that an underlined image type on the pop-up menu indicates the particular image type is in fact used within the document.

Check the Colored Fill box to be alerted when a grayscale image resides in a box which uses a colored background or fill.

Check the Clipping Path box to be alerted when any pixel-based image resides in a picture box having a background set to "None" and therefore may require a clipping path to achieve optimum output. Vector-based EPSF images will always be excluded from this determination.

Check the Bitmap Frame box for FlightCheck to alert you when any image resides in a picture box which has a custom Bitmap Frame or Border. Most custom bitmaps print at an unacceptably low quality.

Check either the Box Rotation or Box Skew boxes to be alerted when a picture box has been rotated or skewed

#### Contents Controls

Check either the Image Scale, Image Rotation or Image Skew boxes if you want to be alerted when any image has been scaled, rotated or skewed. Scaling is by far the more serious picture attribute to contend with. Rotation and skew can alter the way an image "looks", and the only real drawback is added processing time, but scaling becomes an extremely critical factor in determining the output quality of an image. It is therefore far better to return the image back to the application which created it and change its resolution or to modify the image in such a way so that it can be placed on the document page at 100% scale with no further rotation or skew applied.

Check the H/V Flip box to be alerted when the contents of a picture box has been flipped horizontally or vertically. Flipping by itself may not constitute a real error, other than adding processing time, unless of course the box has its contents flipped by mistake, in which you will be happy to have FlightCheck point this out.

Check the Styles/Contrast box to be alerted when any image has had a Style or Contrast applied to it. Sometimes when a 1-Bit image which has been "colorized", or has had some sort of contrast applied, is sent to certain printers, the color information might be ignored, especially if OPI (hi-res image substitution) is employed. In this case, it is better to return to the application which created the image and to apply the desired color to the source image.

Check the Picture Trap box to alert when a picture has been set for trapping.

Check either the Halftone Screen or Transfer Function boxes to be alerted when an image contains either a Halftone Screen or a non-linear Transfer Function. The reason why you would want to know about these special functions is because these built-in routines are essentially PostScript commands that will alter the pixel data as it is being sent to the printer, with the end result possibly being a printout you do not expect.

Check the Channels box to be alerted when any image contains additional channels. Most applications will safely ignore the additional channels of an image, but a native Photoshop file which uses additional channels will stop most RIPs.

Check the Layers box to be alerted when any image contains additional channels. Because most RIPs cannot handle a layered image, it is therefore recommened one should resave the image in a "flattened" state.

#### **Resolution Controls**

Check the Resolution box to be alerted when the effective resolution for any image is not within the specified range (as entered into the Minimum and Maximum edit boxes). We use the term "effective"

because the final resolution of an image has to take into account any scaling applied to the image.

This is a very critical and extremely important function of FlightCheck. Whenever FlightCheck scans an image, it then compares the image resolution to the output line screen and will post an error if the effective resolution does not fall within the desired range. It is commonly accepted that the effective resolution of the image should be between 1.5 to 2.0 times the line screen in order for the output to be acceptable. For example, if the line screen is 150 lpi (lines per inch) and you enter a maximum effective resolution value of 2.0, then any image which has a dpi (dots per inch) greater than 300 (in other words 2.0 times 150) would be an "error".

The Factor/DPI pop-up menu allows you to choose between specifying the effective resolution range in terms of a factor, such as 1.5 to 2.0, or an actual DPI. For example, if the line screen is 150 lpi, and you still want the range to be 1.5 to 2.0, you can enter DPI values of 225 to 300 (1.5 times 150 and 2.0 times 150) into the Minimum and Maximum edit boxes to achieve the same effect as you would by selecting Factor.

Check the Bitmaps box to be alerted when the effective resolution for any 1-BIT image is not within the specified range. Because 1-BIT images are printed using single black or white dots and can be mapped easily into any spatial area, the Minmum and Maximum values can be much greater than colored, multi-pixel images.

Check the Flatness box to be alerted when the flatness value for any image is not within the specified range. Flatness is the accuracy (or smoothness) with which curves are to be rendered on the output device. The value gives the maximum tolerance for calculating a curve, measured in output device pixels. Smaller numbers give smoother curves, but at the expense of more computation time and memory usage. You can enter Minmum and Maximum values in order for FlightCheck to alert you when an image contains a flatness setting that falls outside the specified range.