## Training

## Scaling a Bitmap Graphic for LabeLase® Producer

LabeLase® Producer has the ability to add bitmap graphic images to its layout files, and it also allows you to scale the size of those images after adding them. This allows you to resize the image to better fit the amount of space available on the tag. While Producer can take a large bitmap file and scale it down to a much smaller size, this is often a bad idea. If you load a very large bitmap graphic and scale it way down, it will appear the right size on the tag but it will require a lot of processing power to load and resize the image. The loading/resizing operation will happen every time your tag is printed, which can result in a noticeable increase in the time it takes to print the tag.

The solution to this problem is to manually resize the image before adding it to your layout using a tool like Microsoft Paint, which comes with all versions of Windows.

The tag printers made by InfoSight, like the LabeLase® 1000 model printer, typically have a print resolution of about 0.003 inches per pixel. This corresponds to a print density of 333 dots per inch or DPI. The key to scaling the image to the right size before importing it into Producer is to know your printer's DPI setting and the final size of the graphic image that you want on your tag.

Here is an example of how to scale your bitmap image using Paint. Lets say that you have a bitmap graphic file (BMP) of your company logo that is 1000 by 1000 pixels square, and you want to include that image on your tag at $0.5 \times 0.5$ inches. You could import the image as-is into a graphic field and set the field's scaling factor to 0.167 (that is, 333 dots per inch divided by 1000 dots times 0.5 inches). This will give you the desired result of a half inch square image on the tag, but at the expense of having to store the large image in the layout (longer load and save times) plus having to scale the image on every print cycle (longer print times.) Note that this approach can also result in loss of fine detail in the image as Producer removes pixels to make the image smaller.

To reduce the size of the image in the layout file and eliminate the need to scale it on every print, use a tool like Paint to scale the image before you import it. Paint can resize the image down to 167 pixels in both dimensions and then save that image to a file. Import the smaller image into Producer and set the scale factor of the graphics field to one in both dimensions. You will end up with the 0.5 inch graphic on your tag, the file will be smaller and the layout will print faster.

Also, make sure to save your image files in the Monochrome format. LabeLase $®$ printers can't print color anyway, and the monochrome format is smaller and will also help reduce file size.

The formula for pre-scaling the image:
Image Dimension (X or Y) = Printer DPI * Desired Printed Image Size (in inches)
Using our previous example:
Image Dimension $(\mathrm{X}$ and Y$)=333$ * 0.5 , or 167 pixels in both dimensions

Making your source image the right size prior to adding it to your layout can save you time in printing.
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