
EDITORIAL



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Editor

"A Thousand Words"

Illustrations are an important part of scientific and engineering communications. Therefore, they are a major concern to both authors and editors. In a journal devoted to electronic imaging, the concern is even greater than normal; after all, images are our living. The question is, how do we work together to make sure each of your pictures gives its full thousand words of value?

First, the author has the responsibility to assure he has the right to use the illustrations in his paper. Most previously published illustrations are covered by copyright. Brian Thompson, in a recent editorial in *Optical Engineering* (January 1992, p. 5), covered this topic, so I will not dwell on it here.

Second, choose the illustration to show your point. If the text says "Note that our new printer shows detail well beyond the capability of any printing press," then don't send a full-page print to be copied and printed in the journal with a standard press! Try to make sure that what you send will show what you want when printed. To show fine details, consider enlargements of small areas. Current research on digital halftones is a good example; many of the patterns are not suited to a printing press without some magnification. If in doubt, phone or write to me.

At some point, the careful author checks the "Information for Contributors" section and finds phrases like "Line drawings should be drawn in black ink...." and "Photographs should be black-and-white continuous-tone prints on glossy paper." Our typical author looks at his workstation and his laser printer and mumbles something like "In which century were these instructions written?" Well, unfortunately, they still represent the reality of publishing. Most illustrations are still delivered in paper form. Today's standards (Isn't it nice that we have so many incompatible ones?) still make paper the best form to work with usually, even when the original was digital and the printer may use a scanner and digital system to make the printing plates. Clearly, computer-generated line art, like a graph, is acceptable in place of

"black ink," as long as a good quality printer is used. For pictures, if the author has access to a continuous-tone photographic output device, it is still the most desirable way to create pictorial examples.

How about the author without access to a digital-to-photo device? If your computer printer is going to halftone the picture to print it, consider what our printer needs to do. We either need to blur out your halftone screen and rescreen the picture, or else we need to try to copy and sharpen your halftone dots well enough to use them as our screen. The first method blurs the image; the latter depends on how you made your halftone. The best idea is to make your pictures oversize and to use a coarse halftone screen. A coarse halftone is easier to copy accurately and, when reduced, it will print well and look good.

Other options? If your computer printer will handle the volume to make the several thousand copies we need, consider sending a page to be inserted into the journal. Then you can make the page exactly as you want it, assured that it will look exactly like that in the journal. Obviously, if you are describing a new printing method, this is a sensible approach, as it shows off the real system and all its characteristics. For color pictorial examples, either inserts or continuous-tone photographs are almost essential, because the overlaid halftone patterns in a color image make it very difficult to maintain good quality when starting from a halftone print.

For our part, we will continue to do the best we can with what we get. We will also continue to experiment with new ideas and examine ways to accept direct digital input. Sometime soon we will rewrite the instructions to provide more options that can be used with assurance of quality output. We truly want each of your pictures to be worth its thousand words.