

Are You Camera Ready?

The single most common error in communication between quick printers and forms manufacturers concerns camera-ready artwork, according to most of the plant customer service and inside sales reps that I've talked to. What is and what isn't camera-ready simply isn't very well understood.

While the worst offenders are inexperienced quick printers and sales service reps handling quotations for business forms distributors, a surprising number of problems occur with people who've been in the industry long enough to understand the graphic arts process. All in all, this is continuing evidence of a lack of quality training in our industry.

Five Components

To understand the meaning of camera-ready, the process of selling and then manufacturing a business form can be broken down into five components: design, composition, preparation, printing and finishing. The graphic arts camera is the first part of the prep operation.

Forms design is unquestionably the responsibility of the quick printer or forms distributor, at least as far as the distributor/manufacturer relationship is concerned. The primary function of any printer is to execute the concepts and designs of others. The forms design process generally ends with a sketch or a marked-up copy of an existing form.

That sketch or copy is used as the guide and instructions for composing or typesetting the form, which may be accomplished by traditional typesetting equipment, desktop publishing or a digital forms composition system.

In most cases, the final product of the composition process is an exact typeset rendering of what the form is supposed to look like, printed all in black on a sheet of bright, white coated paper. This is generally what is meant by camera-ready artwork.

The camera simply takes a picture of the finished artwork. The picture is used as an intermediate step in the production of printing plates, which are used to actually print the form.

The key is that the camera produces a photographic negative, a reverse image of your artwork on a piece of photographic film. This is a monochromatic process, and not to be confused with a Polaroid or 35mm color photo. The graphic arts camera sees everything in terms of black and white, or more accurately, light and dark. Everything that is dark on the artwork, such as the typeset words and rules, is exposed as clear film. Everything that is light, the white background of the typesetting paper, is exposed as opaque black film.

Two Problems

The problems created by not understanding camera-ready art-work are two-fold. First and most common is the problem of pricing. When you tell a manufacturer that you are providing camera-ready artwork at the quotation stage, you are given a price that does not include any cost or time for type-setting, ruling or any other preparation for the camera. If you then send in the order with artwork that is not complete, the manufacturer is going to give you a new, higher price. You then have two options: absorb the added cost or give your customer the bad news about the price of their forms. Neither is a particularly attractive option.

The best idea is for you to know—and to let your manufacturer know right from the start—what condition the artwork will be in. There is no shame involved in not providing camera-ready artwork on every job.

Typesetting is one of the services that your manufacturer makes available to you, from setting and pasting minor changes to the composition of the entire form. In fact, in the early days, manufacturers did most of the composition for forms distributors and salespeople. Having the typesetting done locally or in-house is a strategy that forms distributors evolved to in order to gain more control and to provide better service in the design and proofing stages of an order.

Quality Issues

The second type of problem concerning camera-ready artwork is a question of quality. Remember that the camera is indiscriminate, it's going to give you a picture of whatever you put in front of it. Sure, the camera operator has some ability to enhance marginal artwork. (A camera operator can also give you a bad shot, but that doesn't happen often.) You're best off working on the principle that what you see on the artwork is what you're going to get on the printed form.

It's a fairly common practice to use an existing printed form as the camera-ready artwork for a reprint, or to use parts of an existing form along with new type in a "cut-and-paste" process. There is not necessarily anything wrong with these techniques. They have obvious advantages in saving on the cost of new typesetting and as long as the contrast is good, the camera will be able to provide a good image.

The problems occur when the contrast is not good, and this is usually a function of color on the form being used as artwork. What the camera sees best is black against white. It will handle most solid dark colors reasonably well. It won't handle light colors well at all, particularly light blues. And, you *cannot* reproduce a screen by shooting a printed screen on an existing form.

In addition to contrast, the quality of a printed form can be affected by a spreading of the type and rules. You get some deterioration of the sharpness of any image every time you regenerate it. A form printed from freshly typeset artwork is already a fourth generation image. The artwork was the first generation, the film negative was the second and the printing plate was the third. If you use the fourth generation image printed form as the artwork for a reprint, that reprint will be a seventh generation image from the original.

Acceptable Quality?

If you use all or parts of a printed form a few times as artwork, you can get significant spreading. Is that acceptable? It may very well be. Function is the most important consideration with most business forms. If it would cost a hundred dollars to set fresh type for a form that's only used internally, or is not "corporate image sensitive" in any other way, that might not be money very well spent by your customer.

The key is that your customer should be involved in those decisions, with you providing expert advice. Your explanation of the level of print quality that can be expected from the quality vs. cost of the artwork will reinforce your value as the expert in every aspect of form selling.

Screens And Resolution

Screen effects are produced by printing dots of ink on the paper, rather than complete solid coverage. The lightness or darkness of the screened image is determined by the size and density of the dots—how close they are together and how much of the base paper "reverses" through to lighten the effect.

The camera will not see the dots that exist on the printed form. It will be tricked, as the human eye is tricked, into seeing a lighter color. It will only reproduce that as mush, lighter or darker depending primarily on the original ink color. High quality screen effects are added in the "stripping" process.

Resolution has become more important as desktop publishing has become more widely used in forms composition. In a process somewhat analogous to screening, both laser printers and full-scale typesetters create characters and rules by forming dot patterns. The smaller the dot that the system is capable of creating, the higher the resolution and the sharper and crisper the character will be. Full-scale typesetters typically output at well over 1,000 dots per inch, while the laser printers that operate with typical DTP PCs output at 300 dpi. The result is that the rules and characters from laser printers are noticeably more ragged. Again, though, 300 dpi quality may be perfectly acceptable for the particular forms application.

Your responsibility is to know what is camera-ready and what is not, both the functional and artistic considerations. Understanding camera-ready will help you avoid what may be the single most common error in communication between the people who sell business forms and the manufacturers who print them.