



TWO CENTS FROM PREPRESS

Effective Resolution vs. Actual Resolution

“My Photos are all 300 dpi; why do some look so bad?”

In a perfect world, we would always scan our photos at 300 dpi and use our photos at 100%. In the real world, we're often forced to scale our photos once we put them into our page layout program. And that's where the problems start.

Let's say you placed a photo at 100% (see Figure A) and now the customer wants the photo twice as big. You enlarge it to 200% in your page layout program. The **actual** resolution of this photo was 300 dpi, but now that you've scaled it, the **effective** resolution is 150 dpi, or half the original resolution (see Figure B). Why? Once you enlarged the photo, all the pixels became twice as wide and twice as tall, so now fewer of them will fit “per inch.” Conversely, if you reduce your photo, the pixels become smaller and *more* of them will fit “per inch.”

In a nutshell: reducing the scale increases the effective resolution; enlarging the scale reduces the effective resolution.

