Resolutions Resolved

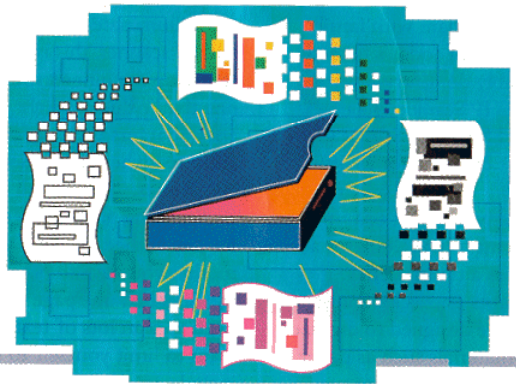
How much resolution is enough? That depends on the items you'll be scanning and what you intend to do with them. For most types of scans, high resolutions are needed only when you'll be printing images at sizes much larger than the size of the original.

When scanning for one-to-one printing, the most demanding type of source material is line art—images that comprise only one color (typically black) and white, such as pen-and-ink drawings and blueprints. If you'll be printing line art at the same size as the original, scan at the resolution of the output device but no greater than 1,200dpi. If you'll be scaling the image, multiply by the scaling factor, but again don't exceed 1,200dpi.

Scan at a resolution of no more than 200dpi when you just want to fax pages. When you're scanning text for optical character recognition, 300dpi to 400dpi is optimal.

Scan resolutions should be similarly low when scanning photographs. If you simply want to post images on the Web or view them onscreen, scan at 72dpi to 96dpi. If you need to edit the images before you post them, select a resolution of 150dpi to 300dpi, then downsample within your image editor.

When you're scanning photographs for same-size printing, a resolution of 300dpi is a good maximum even if you'll be outputting to a high-resolution device. Apply a scaling factor as necessary. You may get better results by scanning at 600dpi or so, then downsampling in software as you edit the image before printing.



If you need to scan negatives, slides, or transparencies for serious enlargement, a 2,400dpi optical resolution will come in handy, but consider a 1,200dpi resolution the absolute minimum.