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Your questions answered: solutions, tips, and techniques. Here are the answers to some questions recently asked about Adobe products, assembled by members of Adobe's technical-support group and the staff of *Adobe Magazine*. Please contact Adobe technical support if you need help with one of the products covered here—phone-support options are listed on pages 102-3 of this issue.

Acrobat

Windows (2.0 only): How can I make sure Acrobat Capture is running as fast as possible?

Several things can speed up (or slow down) Adobe Acrobat Capture 2.0. Some of these things you may not have too much control over—for instance, files with many or very large graphics will always take Capture longer to process than files that contain only text. Nevertheless, you can do a lot to optimize your system and streamline your scanning and processing routines. Here are some of our recommendations.

Make sure you're using a fast, powerful PC. Having plenty of RAM is critical. We recommend that you have at least 32 MB on the PC you use to run Acrobat Capture; the minimum requirement is 16 MB on Windows 95 and 32 MB on Windows NT (for more information on the minimum and recommended configurations for Acrobat Capture, see pages 5-6 of the *Acrobat Capture Getting Started Guide*). If you want Acrobat Capture to run as quickly as it possibly can—especially if you do high-volume work or process extremely large or complex files—an even beefier PC can make a big difference. Many Acrobat Capture users find that the following configuration yields exceptional performance:

- At least 64 MB of RAM in Windows 95 or NT 4.0
- A CPU that runs at no less than 200 MHz
- An amount of free hard-disk space equal to at least three to four times the size of the largest file you routinely process in Capture (for example, many Acrobat users find that having 20 MB of free disk space for processing 8.5-by-11-inch, black-and-white files works very well)

You also need to maintain your computer for the best possible performance. We suggest that you optimize your hard disk frequently using either the Scandisk or Defrag DOS features (included with MS-DOS 6.2x and later) or a disk-optimization utility such as Norton Utilities.

Finally, be sure to designate a large amount of hard-disk space

as virtual memory—we recommend at least 100 MB.

Start with high-quality images. Capture can take more time to process scans of poor-quality originals, which usually contain extra, unnecessary data for Capture to interpret. And if the original document is really dirty or unclear, be aware that scanning at a darker level probably won't improve your results. Stick to scanning the cleanest originals available (we recommend that you not scan photocopies, for instance).

Get the best scans possible—but don't overdo it. Make sure your scanner is configured to produce the highest-quality scans possible (for instructions on configuring your scanner, refer to its user guide).

Decrease your scanning resolution to reduce file size and processing time—you should scan at 200-400 dpi for color images and 200-600 dpi for black-and-white. (Try about 400 dpi if you have text that's 6 points or smaller.) Also, try scanning in black and white rather than grayscale or color when possible (grayscale and color files are always larger and thus take longer to process).

Once you've scanned your original, consider using an image-cleanup tool on it before you process it in Acrobat Capture. Some scanners come with such tools, but you can certainly use Adobe Photoshop or another image-editing application as well. Image-cleanup techniques that can improve Acrobat Capture results include despeckling, deskewing, contrast and brightness adjustment, and text-edge smoothing.

Once you have your technique down, you can automate the steps in Photoshop using its actions feature. You can also purchase Adobe Photoshop plug-ins, such as Extensis Intellihance and ImageXpress ScanPrepPro, that are designed specifically to automate image correction and cleanup.

Configure Acrobat Capture for optimal results. You should pay special attention to certain Acrobat Capture settings that can affect processing speed.

Micro Tip
Acrobat Capture is a resource-intensive application, so the more resources (that is, memory and hard-disk space) you give it, the faster it will run. One way to maximize its performance is to give it its own machine.

- Make sure that Acrobat Capture's Primary Language option (in the Setup Processing Options dialog box) is set to whatever language you most frequently use.
- If the pages of the file you're processing are all oriented the same way, specify that orientation in Capture's Setup Processing Options dialog box.
- If you're processing a document that contains text, specify the Most Accurate option (not the Fastest option) for the Performance Preference in Capture's Setup Processing Options dialog box. In some cases the Fastest option can save time, but it can also cause Capture to process text incorrectly. Having to reprocess a file occasionally because of incorrectly processed text can cost you more time in the long run.
- Process files that reside on your local hard disk, not on a network drive.
- If you're going to review the processed file in Acrobat Capture Reviewer, save processed files in ACD (Acrobat Capture document) format.

Windows/Mac: No matter what I try, screen captures always seems to look blurry in my PDF files. What do I need to do to get them to look nice and crisp?

What you need to do to achieve crispness can vary depending on the extent of the problem—whether the screen captures look blurry both on screen and when printed, or whether they look blurry on screen only.

If the screen captures look blurry on screen *and* when you print them out, the cause is either JPEG compression or down/sub-

sampling. Acrobat generally should not use JPEG compression on your screen captures if you've selected the Automatic Compression option, but if this occurs, you can select either the LZW or ZIP Manual Compression options instead. (For more information on manual compression, see Acrobat Q&A in the Spring 1998 issue of *Adobe Magazine*.)

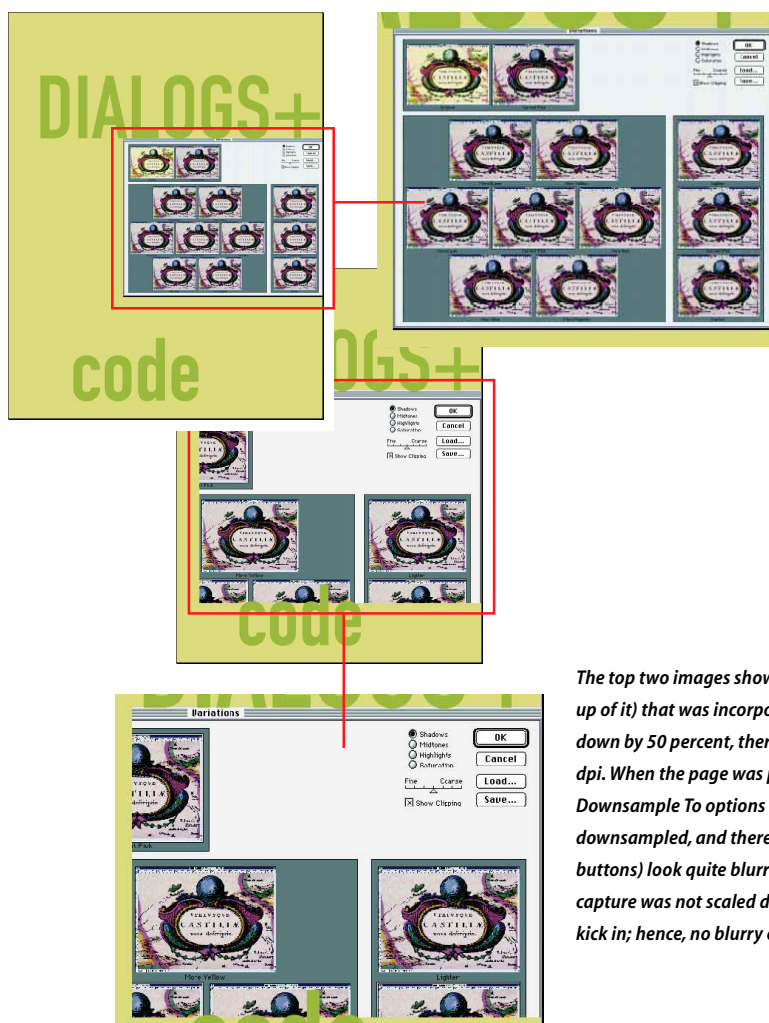
To ensure that you don't downsample or subsample your screen captures, you can employ any of the following strategies.

- Turn off down/subsampling altogether: deselect the Downsample To or Subsample To options in the Compression section of Acrobat Distiller's Job Options dialog box. (If you're using PDFWriter, deselect the Downsample Images option in the Acrobat PDFWriter Compression dialog box.)
- If you're using Acrobat Distiller, you can try leaving the Downsample To or Subsample To options on if you set the accompanying resolution (dpi) setting to a high enough value to ensure that your screen captures won't get downsampled. *If your screen capture's resolution is at least twice the resolution of the Downsample To or Subsample To settings, Distiller will downsample or subsample them.*
- If you use Acrobat Distiller to create your PDF files, you can also save your screen captures from Photoshop (or another image-editing program) as EPS files. Distiller won't downsample raster EPS graphics no matter what their resolution.

If your screen captures look fine when you print them but look blurry on screen, you've got a different problem. Quite simply, the resolution of the screen captures is higher than what your monitor can display, so the monitor itself is downsampling them. To prevent this, make sure your captures display at full size.

1. Use your 72-dpi screen captures at 100 percent of their original size, without reducing them (which would increase resolution).
2. If you have 96-dpi screen captures, change them to 72 dpi. You can do this by using Photoshop's Image Size dialog box (deselect Resample Image, and then type in 72 pixels/inch for Resolution). You can also scale your 96-dpi image by 133 percent in your page-layout or illustration program.
3. Using Acrobat Exchange, set your document to display at 100 percent of its original size. To do so, choose Open from the Document Info submenu of the File menu, and in the Open Info dialog box, select 100 percent from the Magnification pop-up menu. Then save the PDF file.
4. Try to design your document so that its overall dimensions are small enough that it will fit on most display systems at 100 percent view size in Acrobat Reader or Exchange. This can be challenging, though; if you want the whole document to display at 100 percent on a 640-by-480-pixel display, you need to keep it at no more than about 614 pixels by 386 pixels (8.5 by 5.3 inches)—or just 8.5 inches wide if you don't mind your readers having to scroll down each page.

Designing your document so that the screen captures will display at no less than 100 percent (or—even better—at exactly 100 percent) of their original size can be hard, but don't fret if it isn't practical—your readers can always zoom in on the screen captures to see them clearly. ♦



The top two images show a 72-dpi screen capture (and a close-up of it) that was incorporated into a page layout and scaled down by 50 percent, thereby making its actual resolution 144 dpi. When the page was processed by Acrobat Distiller with its Downsample To options on and set to 72 dpi, the image got downsampled, and therefore its "synthetic" elements (e.g., the buttons) look quite blurry. In the bottom two layouts, the screen capture was not scaled down, so Distiller's downsampling didn't kick in; hence, no blurry effects.