

DEBUMP

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What it does...

Debump shrinks and smoothes graphic images. It's great for logos and other on-screen graphic objects, as the resulting images appear much less jagged than typical bit-mapped graphics. As an image is reduced, some graphic information is discarded. Debump uses this information to smooth, or anti-alias, the image.

Shareware...

Debump is a shareware product. If you find it useful and decide to keep it, register by sending \$10 to:

**Maxum Development Corp.
2 White Fence Trail
Streamwood, IL 60107**

Requirements...

Any color or grey capable Macintosh can run Debump; however, Macs displaying 256 or more colors will have the best results. Debump runs in native mode on Power Macintosh computers.

How to use Debump...

- 1) Copy the graphic object to be "Debump"ed from your graphics application to the clip board. (This depends on your graphics program, but is normally done by selecting the graphic object and choosing "Copy" from the "Edit" menu.)
- 2) Open Debump and paste the image by selecting "Paste Large Image" from the "Edit" menu (or by pressing Command-V).
- 3) Use the reduction options in the "Anti-Alias" menu to shrink and smooth the image.
- 4) Copy the new, smaller image into the clip board by selecting "Copy Small Image" from the "Edit" menu (or by pressing Command-C).
- 5) Return to your graphics application and paste the new image.

To see an example of how Debump works, click one of the three example buttons in the "About Debump..." dialog box. This will paste an image into the large image area and you can use the "Anti-Alias" reduction options to see exactly what Debump does.

Overview...

I was working on a shareware game project (MongoPong, available at an on-line service near you) and decided to anti-alias some of the graphics. I did the smoothing by hand, which was painstaking but produced great results, so I decided to try automating the process. The results were better than I expected, and have resulted in this utility program.

When an image is shrunk, some (in many cases, most) of the pixels are removed. This graphic information that is removed is used by Debump to produce smoother, better looking screen bitmaps. This is how Debump performs the smoothing, and is the reason you need to shrink an image in order to anti-alias it.

You may have images that you would like to smooth but keep the same size. This may or may not be possible, depending on how you drew the graphic. If the picture was *drawn* you should be able to enlarge it, then use Debump to reduce it back to the original size and smooth it out. If the picture was *painted*, the results from enlarging and then "Debump"ing won't be so good. The difference between drawing and painting is that drawings can be enlarged without becoming increasingly jagged. Paintings, on the other hand, will get more and more jagged as they are enlarged. If you're not sure, give it a try.

Large Images...

Debump will only handle images that will fit in the paste area window. If your image is larger than this window, you will need to process your image in separate pieces. You can also maximize the window with the "grow box" in the upper right hand corner of the Debump screen. This box will resize the entire Debump window to use you entire screen area. When clicked again, the Debump window returns to its default size.

Future enhancement possibilities...

Debump is based on an extremely simple anti-aliasing algorithm. Its the old 90/10 rule - I got 90% of the results I wanted from about 10% of the work. If there seems to be interest, I will work on implementing improved algorithms. I have ideas for specific improvements in the areas of: straight lines, thin, high contrast lines, gradient fills, and a few others.

It would also be nice to be able to anti-alias without reducing the size of the image. This gets really tricky, we'll see...

The "Copy and Paste" method for importing and exporting graphic objects works acceptably, especially for smaller graphic elements, but it would also be nice to be able to process an entire file. This gets into file formats and other problems, but like I said, if there is sufficient interest...

Warranty (or lack thereof) and distribution...

There is no warranty. I have tested Debump on a variety of systems, but the user is solely responsible for the use or misuse of the software.

Debump may be distributed freely by modem or by non-profit diskette or CD-ROM, but may not be altered in any way. This "Read Me" file must always accompany any distribution.