NAME
pbmreduce - read a portable bitmap and reduce it N times

SYNOPSIS
pbmreduce [**-floyd**|**-fs**|**-threshold**] [**-value** *val*] *N* [*pbmfile*]

DESCRIPTION
Reads a portable bitmap as input. Reduces it by a factor of *N*, and produces a portable bitmap as output.

pbmreduce duplicates a lot of the functionality of *pgmtopbm;* you could do something like **pnmscale | pgmtopbm,** but *pbmreduce* is a lot faster.

pbmreduce can be used to "re-halftone" an image. Let's say you have a scanner that only produces black&white, not grayscale, and it does a terrible job of halftoning (most b&w scanners fit this description). One way to fix the halftoning is to scan at the highest possible resolution, say 300 dpi, and then reduce by a factor of three or so using *pbmreduce*. You can even correct the brightness of an image, by using the **-value** flag.

OPTIONS
By default, the halftoning after the reduction is done via boustrophedonic Floyd-Steinberg error diffusion; however, the **-threshold** flag can be used to specify simple thresholding. This gives better results when reducing line drawings.

The **-value** flag alters the thresholding value for all quantizations. It should be a real number between 0 and 1. Above 0.5 means darker images; below 0.5 means lighter.

All flags can be abbreviated to their shortest unique prefix.

SEE ALSO
pnmenlarge(1), pnmscale(1), pgmtopbm(1), pbm(5)

AUTHOR
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