NAME
saturate − saturate, standardize and stretch linearly

SYNOPSIS
saturate [[−z] | [−M mask_file [mask_value |−o maskoutval]]] [−s [mean stddev]] [−a |−p] [−l min max] [−b]

DESCRIPTION
saturate with −s standardizes an image sequence to a desired mean (default 0) and standard deviation (default 1; if negative input sequence is negated; if 0 only mean is changed). With −l it saturates an image sequence by setting all values below min to min and all values above max to max. With −p (and −l) it saturates an image sequence by setting all values below −(max−min) to −(max−min) and all values above max−min to max−min and all values between −min and min to zero. If −s and −l or −p are specified simultaneously each frame is standardized to the desired mean and standard deviation before saturation. If −a is specified absolute values are taken (after standardization, before saturation). Default output format is float. If −b is specified a byte sequence stretched linearly from minimum to maximum for each frame is output. Input sequence must be byte, short, int or float.

OPTIONS
−z do not include zeros in statistics calculations
−M mask_file [mask_value]
include only pixels where byte image mask_file has value mask_value in statistics calculations; default: all values > 0
−o [maskoutval]
set value of unmasked pixels to maskoutval in outseq, defaults to 0 (in this case and if −b is specified inseq is stretched linearly to interval [1,255], else inseq is stretched linearly to interval [0,254])
−s [mean stddev]
standardize input sequence to desired mean (defaults to 0) and standard deviation (defaults to 1)
−a take absolute values of input sequence before saturating
−l min max
set all values below min to min and all values above max to max
−p (with −l) set all values below −(max−min) to −(max−min) and all values above max−min to max−min and all values between −min and min to zero
−b output byte sequence stretched linearly from minimum to maximum

SEE ALSO
scale, scale0, histoeq, histobe, fhist

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