

**NAME**

compare – mathematically and visually annotate the difference between an image and its reconstruction.

**SYNOPSIS**

**compare-im6.q16** *input-file input-file [options] output-file*

**OVERVIEW**

The **compare-im6.q16** program is a member of the ImageMagick-ims6.q16(1) suite of tools. Use it to mathematically and visually annotate the difference between an image and its reconstruction.

For more information about the compare command, point your browser to <file:///usr/share/doc/image-magick-6-common/html/www/compare.html> (on debian system you may install the imagemagick-6 package) or <http://imagemagick.org/script/compare.php>.

**DESCRIPTION**

Image Settings:

- alpha option on, activate, off, deactivate, set, opaque, copy  
transparent, extract, background, or shape
- authenticate value decrypt image with this password
- background color background color
- channel type apply option to select image channels
- colorspace type alternate image colorspace
- compose operator set image composite operator
- compress type type of pixel compression when writing the image
- decipher filename convert cipher pixels to plain pixels
- define format:option  
define one or more image format options
- density geometry horizontal and vertical density of the image
- depth value image depth
- dissimilarity-threshold value  
maximum distortion for (sub)image match
- encipher filename convert plain pixels to cipher pixels
- extract geometry extract area from image
- format "string" output formatted image characteristics
- fuzz distance colors within this distance are considered equal
- gravity type horizontal and vertical text placement
- identify identify the format and characteristics of the image
- interlace type type of image interlacing scheme
- highlight-color color  
emphasize pixel differences with this color
- limit type value pixel cache resource limit
- lowlight-color color  
de-emphasize pixel differences with this color
- mask filename associate a mask with the image
- metric type measure differences between images with this metric
- monitor monitor progress
- passphrase filename get the passphrase from this file
- profile filename add, delete, or apply an image profile
- quality value JPEG/MIFF/PNG compression level
- quiet suppress all warning messages
- quantize colorspace reduce colors in this colorspace
- regard-warnings pay attention to warning messages
- repage geometry size and location of an image canvas
- respect-parentheses settings remain in effect until parenthesis boundary
- sampling-factor geometry  
horizontal and vertical sampling factor

- seed value        seed a new sequence of pseudo-random numbers
- set attribute value set an image attribute
- similarity-threshold value  
                  minimum distortion for (sub)image match
- size geometry    width and height of image
- subimage-search   search for subimage
- synchronize      synchronize image to storage device
- taint            declare the image as modified
- transparent-color color  
                  transparent color
- type type        image type
- verbose          print detailed information about the image
- virtual-pixel method  
                  virtual pixel access method

#### Image Operators:

- brightness-contrast geometry  
                  improve brightness / contrast of the image
- distort method args  
                  distort images according to given method and args
- level value      adjust the level of image contrast
- resize geometry   resize the image
- rotate degrees   apply Paeth rotation to the image
- separate         separate an image channel into a grayscale image
- trim            trim image edges
- write filename   write images to this file

#### Image Sequence Operators:

- crop geometry    cut out a rectangular region of the image

#### Image Stack Operators:

- delete indexes   delete the image from the image sequence

#### Miscellaneous Options:

- debug events     display copious debugging information
- help            print program options
- log format      format of debugging information
- list type        print a list of supported option arguments
- version         print version information

By default, the image format of 'file' is determined by its magic number. To specify a particular image format, precede the filename with an image format name and a colon (i.e. ps:image) or specify the image type as the filename suffix (i.e. image.ps). Specify 'file' as '-' for standard input or output.

Two images are considered similar if their difference according to the specified metric and fuzz value is 0, with the exception of the normalized cross correlation metric (NCC), where two images are considered similar when their normalized cross correlation is 1. The default metric is NCC.

The compare program returns 2 on error, 0 if the images are similar, or a value between 0 and 1 if they are not similar.

#### SEE ALSO

ImageMagick-ims6.q16(1)

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