## NAME

devas-compare-boundaries - compare one set of boundaries to another

## SYNOPSIS

**devas-compare-boundaries** [*options*] *standard.png comparison.png coordinates visualization.png*

## DESCRIPTION

Compares a binary image presumed to represent the location of real boundary elements (e.g., from geometry) to a comparison binary image presumed to represent the location of boundary elements to be compared to the standard (e.g., luminance values). The output is a visualization of the distance, in visual angle, from each real boundary element to the nearest comparison boundary element.

## OPTIONS

**--red-green**

Larger distance (usually associated with estimated visibility hazards) shown in red and other geometric standard boundary elements that are closer (usually associated with elements estimated to be less of a potential visibility hazard) shown in green. Default.

**--red-gray**

Larger distance (usually associated with estimated visibility hazards) shown in red and other geometric standard boundary elements that are closer (usually associated with elements estimated to be less of a potential visibility hazard) shown in dark gray.

**--Gaussian=**<*sigma*>

Visualization based on distance weighted by an unnormalized Gaussian function with standard deviation <*sigma*>. Default visualization weighting is **--Gaussian=0.75**.

**--reciprocal=**<*scale*>

Visualization based on reciprocal of distance, with distance scaled by <*scale*>.

**--linear=**<*max*>

Visualization linearly scaled to a maximum distance of <*max*>.

**--quantscore**

Annotate the output image with the average hazard value over all of the boundary elements in the standard. Only available if compiled with the Cairo library option.

**--mask=**<*filename.png*>

Name of existing PNG file where pixels that are TRUE should be marked specially in the output visualization file. This is usually the output file from devas-visualize-geometry that is generated

when the **--mask** flag is specified for that program.

## ARGUMENTS

*standard.png*

Binary image file, with *TRUE* indicated by non-zero value. Represents the standard to compare against (e.g., geometry).

*comparison.png*

Binary image file, with *TRUE* indicated by non-zero value. Represents the boundary elements to be compare to the standard (e.g., luminance boundaries).

*coordinates*

A two line text file. The first line specifies the units for the *xyz.txt* and *dist.txt* files. The second line is the same as the VIEW record in *input.hdr*. See **make-coordinates-file** for information on how to create this file.

*visualization.png*

Output visualization file.

## AUTHOR

William B. Thompson