Ppmtoarbtxt User Manual

ppmtoarbtxt

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NAME

ppmtoarbtxt - generate image in arbitrary text format from PPM image

SYNOPSIS

ppmtoarbtxt *bodyskl* [**-hd** *headskl*] [**-tl** *tailskl*] [*ppmfile*]

DESCRIPTION

This program is part of Netpbm. **ppmtoarbtxt** generates simple text-based graphics formats based on format descriptions given as input. A text-based graphics format is one in which an image is represented by text (like PNM plain format, but unlike PNM raw format). **ppmtoarbtxt**reads a PPM image as input. For each pixel in the image, **ppmtoarbtxt** writes the contents of the skeleton file *bodyskl*, with certain substitutions based on the value of the pixel, to stdout. The substitutions are as follows:

#(ired *format blackref whiteref***)**generates an integer in the range *blackref* to *whiteref* using *format* representing the red intensity of the pixel. A red intensity of 0 becomes *blackref*; a red intensity of maxval becomes *whiteref*.

#(ired) is equivalent to **#(ired %d 0 255)**.

#(igreen *format blackref whiteref***)**Same as **#(ired...**, but for green.

#(iblue *format blackref whiteref***)**Same as **#(ired...**, but for blue.

#(ilum *format blackref whiteref***)**Same as **#(ired...**, but representing the luminance value (0.299*red + 0.587*green + 0.114*blue) of the pixel.

#(fred *format blackref whiteref***)**Same as **#(ired...**, but generates a floating point number instead of an integer.

#(fred) is equivalent to **#(fred %f 0.0 1.0)**.

#(fgreen *format blackref whiteref***)**Same as **#(fred...**, but for green.

#(fblue *format blackref whiteref***)**Same as **#(fred...**, but for blue.

#(flum *format blackref whiteref***)**Same as **#(fred...**, but representing the luminance value (0.299*red + 0.587*green + 0.114*blue) of the pixel.

#(width) Generates the width in pixels of the image.

#(height) Generates the height in pixels of the image.

#(posx) Generates the horizontal position of the pixel, in pixels from the left edge of the image.

#(posy) Generates the vertical position of the pixel, in pixels from the top edge of the image.

If the skeleton file ends with a LF-character, **ppmtoarbtxt** ignores it -- it does not include it in the output.

OPTIONS

-hd *headskl*This option causes **ppmtoarbtxt** to place the contents of the file named *headskl* at the beginning of the output, before the first pixel. It does the same substitutions as for *bodyskl*, except substitutions based on a pixel value are undefined.

-tl *tailskl*This option causes **ppmtoarbtxt** to place the contents of the file named *tailskl* at the end of the output, after the last pixel. It is analogous to **-hd**.

EXAMPLES

gray inversion

Here we generate a PGM plain-format image with gray inversion (like **ppmtopgm | pnminvert**).

Contents of our head skeleton file:

```
P2
#(width) #(height)
255
```

Contents of our body skeleton file:

```
#(ilum %d 255 0)
```

povray file

Here we generate a povray file where each pixel is represented by a sphere at location (x,y,z) = (posx,height-posy,luminance). The color of the sphere is the color of the pixel.

Contents of our head skeleton:

```
#include "colors.inc"
#include "textures.inc"
camera {
  location  <#(width) * 0.6, #(height) * 0.7, 80>
  look_at   <#(width) * 0.5, #(height) * 0.5, 0>
}
light_source { <#(width) * 0.5, #(height) * 0.5, 25> color White
}
```

Contents of our body skeleton:

```
sphere { <#(posx),#(height)-#(posy),#(ilum %d 0 10)>, 0.5
 texture {
  pigment {
   color rgb <#(fred),#(fgreen),#(fblue)>
  }
  finish {
   phong 1
  }
 }
}
```

SEE ALSO

pnmtoplainpnm ppm

HISTORY

ppmtoarbtxt was added to Netpbm in Release 10.14 (March 2003). It existed under the name **ppmtotxt** since 1995.

AUTHOR

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