1. Flowchart: “./flowcharts/pbm.pdf”



**command**: ./rectangles 1 4 4 pbm\_4\_4\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_4\_4\_[ascii, raw].pbm  
  


**command**: ./rectangles 1 4 120 pbm\_4\_120\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_4\_120\_[ascii, raw].pbm

Image is completely black as the crosshairs overlap to cover the entirety of the white box.



**command**: ./rectangles 1 120 4 pbm\_120\_4\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_120\_4\_[ascii, raw].pbm

Image is completely black as the crosshairs overlap to cover the entirety of the white box.



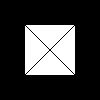
**command**: ./rectangles 1 8 8 pbm\_8\_8\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_8\_8\_[ascii, raw].pbm



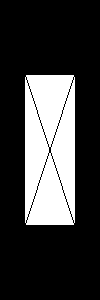
**command**: ./rectangles 1 8 16 pbm\_8\_16\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_8\_16\_[ascii, raw].pbm



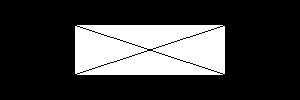
**command**: ./rectangles 1 16 8 pbm\_16\_8\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_16\_8\_[ascii, raw].pbm



**command**: ./rectangles 1 100 100 pbm\_100\_100\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_100\_100\_[ascii, raw].pbm



**command**: ./rectangles 1 100 300 pbm\_100\_300\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_100\_300\_[ascii, raw].pbm



**command**: ./rectangles 1 300 100 pbm\_300\_100\_[ascii, raw] [0, 1]  
**location**: ./images/pbm\_300\_100\_ [ascii, raw].pbm

1. Flowchart: “./flowcharts/pgm.pdf”



**command**: ./rectangles 2 4 4 pgm\_4\_4\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_4\_4\_[ascii, raw].pgm  
  


**command**: ./rectangles 2 4 120 pgm\_4\_120\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_4\_120\_[ascii, raw].pgm

The black gradient in the image is mixing with the background black in the middle of the rectangle because of the tiny width.



**command**: ./rectangles 2 120 4 pgm\_120\_4\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_120\_4\_[ascii, raw].pgm

The black gradient in the image is mixing with the background black in the middle of the rectangle because of the tiny height.



**command**: ./rectangles 2 8 8 pgm\_8\_8\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_8\_8\_[ascii, raw].pgm



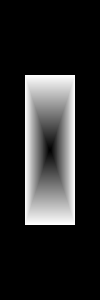
**command**: ./rectangles 2 8 16 pgm\_8\_16\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_8\_16\_[ascii, raw].pgm



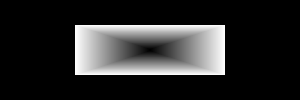
**command**: ./rectangles 2 16 8 pgm\_16\_8\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_16\_8\_[ascii, raw].pgm



**command**: ./rectangles 2 100 100 pgm\_100\_100\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_100\_100\_[ascii, raw].pgm



**command**: ./rectangles 2 100 300 pgm\_100\_300\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_100\_300\_[ascii, raw].pgm



**command**: ./rectangles 2 300 100 pgm\_300\_100\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_300\_100\_ [ascii, raw].pgm

1. Flowchart: “./flowcharts/ppm.pdf”



**command**: ./rectangles 3 6 4 ppm\_6\_4\_[ascii, raw] [0, 1]  
**location**: ./images/ppm\_6\_4\_[ascii, raw].ppm  
  


**command**: ./rectangles 3 4 120 ppm\_4\_120\_[ascii, raw] [0, 1]  
**location**: ./images/ppm\_4\_120\_[ascii, raw].ppm

Red, Green, and Blue gradients appear on the top, and two gray gradients appear on the bottom.



**command**: ./rectangles 3 120 4 ppm\_120\_4\_[ascii, raw] [0, 1]  
**location**: ./images/ppm\_120\_4\_[ascii, raw].ppm

Gradient in rectangles is divided into 2 sections for each color. Making the picture look like it is containing 10 different rectangles.



**command**: ./rectangles 3 12 8 ppm\_12\_8\_[ascii, raw] [0, 1]  
**location**: ./images/ppm\_12\_8\_[ascii, raw].ppm



**command**: ./rectangles 3 12 16 pgpm\_12\_16\_[ascii, raw] [0, 1]  
**location**: ./images/ppm\_12\_16\_[ascii, raw].ppm



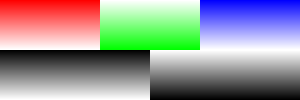
**command**: ./rectangles 3 24 8 pgm\_24\_8\_[ascii, raw] [0, 1]  
**location**: ./images/pgm\_24\_8\_[ascii, raw].pgm

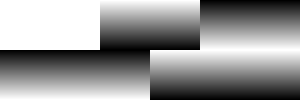


**command**: ./rectangles 3 120 100 ppm\_120\_100\_[ascii, raw] [0, 1]  
**location**: ./images/ppm\_120\_100\_[ascii, raw].ppm



**command**: ./rectangles 3 120 300 ppm\_120\_300\_[ascii, raw] [0, 1]  
**location**: ./images/ppm\_120\_300\_[ascii, raw].ppm

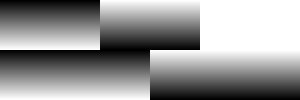


**command**: ./rectangles 3 300 100 ppm\_300\_100\_[ascii, raw] [0, 1]  
**location**: ./images/ppm\_300\_100\_ [ascii, raw].ppm  
  


**command**: ./ppm\_to\_pgm  
**location**: ./images/ppm\_300\_100.R.ppm

The red rectangle becomes completely white because we transform with respect to the red channel. The green and blue become gray gradients.  
  


**command**: ./ppm\_to\_pgm  
**location**: ./images/ppm\_300\_100.G.pm

The green rectangle becomes completely white because we transform with respect to the green channel. The red and blue become gray gradients.  
  


**command**: ./ppm\_to\_pgm  
**location**: ./images/ppm\_300\_100.B.ppm

The blue rectangle becomes completely white because we transform with respect to the blue channel. The red and green become gray gradients.