import java.applet.Applet;

import java.awt.Color;

import java.awt.Graphics;

import java.util.Scanner;

/\*<applet code="LiangBarsky.class" width=300 height=300>

</applet>

\*/

public class LiangBarsky extends Applet

{

int x1,y1,x2,y2,xmin,ymin,xmax,ymax;

Scanner sc=new Scanner(System.in);

public void init()

{

System.out.println("Enter x1,y1,x2,y2 of line and xmin,ymin,xmax,ymax of window");

x1=sc.nextInt();

y1=sc.nextInt();

x2=sc.nextInt();

y2=sc.nextInt();

xmin=sc.nextInt();

ymin=sc.nextInt();

xmax=sc.nextInt();

ymax=sc.nextInt();

}

public void paint(Graphics g)

{

liang(g);

}

void liang(Graphics g)

{

int p[]={0,0,0,0};

int q[]={0,0,0,0};

p[0]=-(x2-x1);

p[1]=(x2-x1);

p[2]=-(y2-y1);

p[3]=(y2-y1);

q[0]=x1-xmin;

q[1]=xmax-x1;

q[2]=y1-ymin;

q[3]=ymax-y1;

float min=10;

float max=-999;

float t1=0,t2=1;

float t[]={0,0,0,0};

for(int i=0;i<4;i++)

t[i]=(float)q[i]/p[i];

System.out.println("t");

for(int i=0;i<4;i++)

System.out.println(t[i]);

for(int i=0;i<4;i++)

{

if(p[i]<0)

{

if(t[i]>max)

max=t[i];

}

}

System.out.println("t1 "+max);

t1=max;

for(int i=0;i<4;i++)

{

if(p[i]>0)

if(t[i]<min)

min=t[i];

}

System.out.println("t2 "+min);

t2=min;

g.drawRect(xmin,ymin,xmax-xmin,ymax-ymin);

g.setColor(Color.white);

g.drawLine(x1,y1,x2,y2);

float x11=x1+t1\*p[1];

System.out.println("x11 "+x11);

float x22=x1+t2\*p[1];

System.out.println("x22 "+x22);

float y11=y1+t1\*p[3];

System.out.println("y11 "+y11);

float y22=y1+t2\*p[3];

System.out.println("y22 "+y22);

g.setColor(Color.black);

g.drawLine((int)x11,(int)y11,(int) x22,(int) y22);

}

}

Setting environment for using Microsoft Visual Studio 2008 x86 tools.

C:\Program Files\Microsoft Visual Studio 9.0\VC>cd/

C:\Program Files\Microsoft Visual Studio 9.0\VC>d:

D:\>cd glancy

D:\glancy>javac LiangBarsky.java

D:\glancy>appletviewer LiangBarsky.java

Enter x1,y1,x2,y2 of line and xmin,ymin,xmax,ymax of window

20

20

80

110

40

40

100

90

t

0.33333334

1.3333334

0.22222222

0.7777778

t1 0.33333334

t2 0.7777778

x11 40.0

x22 66.66667

y11 50.0

y22 90.0

