


```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution
mignotte@goldorak: ~/IFT6150TPs/_5_TpIFT6150V4_4/solution 173x44
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution$ ls
A-histogramme.pgm    B-segmentation.pgm    coeur.pgm      FonctionDemo4.c    RS_89886_img.pgm    TpIFT6150-4-A    TpIFT6150-4-C3    TpIFT6150-4-D.c~  UdM.pgm
A-image_bruitee.pgm  C3-image_bruitee.pgm  compilegcc    FonctionDemo4.h   RS_89886_init.pgm  TpIFT6150-4-A.c   TpIFT6150-4-C3.c  TpIFT6150-4-Dnew
A-image.pgm          C3-image.pgm        convert       FonctionDemo4.o   RS_89886.pgm     TpIFT6150-4-A.c~ TpIFT6150-4-C.c   TpIFT6150-4-Dnew.c
A-segmentation.pgm  C3-segmentation.pgm  C-segmentation.pgm ICM_90394_img.pgm  satelliteIles.pgm  TpIFT6150-4-B    TpIFT6150-4-C.c~ TpIFT6150-4-Dnew.c~
B-histogramme.pgm   C-histogramme.pgm   D-image_bruitee.pgm ICM_90394_init.pgm  satelliteVille.gif  TpIFT6150-4-B.c   TpIFT6150-4-Cold.c TpIFT6150-4-Dold
B-image_bruitee.pgm C-image_bruitee.pgm  D-image.pgm     ICM_90394.pgm    satelliteVille.pgm  TpIFT6150-4-B.c~ TpIFT6150-4-D    TpIFT6150-4-Dold.c
B-image.pgm         C-image.pgm        D-segmentation.pgm README        tmp           TpIFT6150-4-C    TpIFT6150-4-D.c   TpIFT6150-4-Dold.c~
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution$
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution$ ./TpIFT6150-4-B satelliteIles
--> Ouverture de satelliteIles.pgm
```

```
--Entete--
```

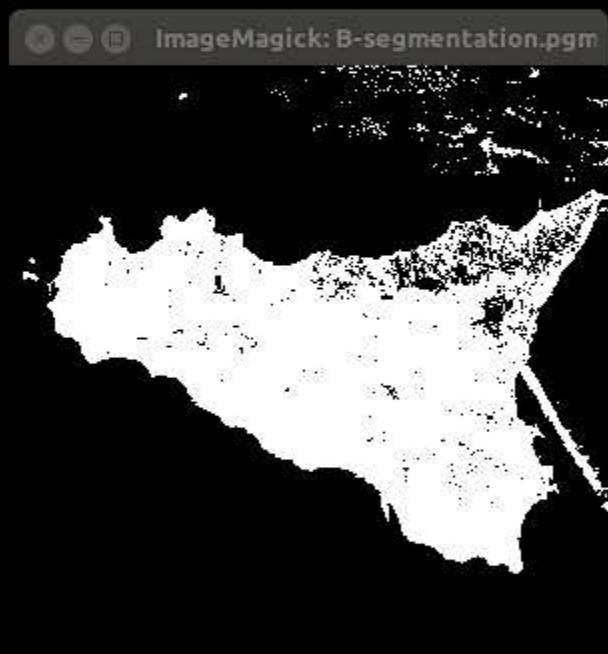
```
P5
# CREATOR: XV Version 3.10a Rev: 12/29/94 (PNG patch 1.2)
300 300
255
12.9 64.4 Vs 14.0 15.0
17.4 116.4 Vs 12.9 64.4
19.3 124.8 Vs 17.4 116.4
19.8 126.1 Vs 19.3 124.8
19.9 126.4 Vs 19.8 126.1
19.9 126.4 Vs 19.9 126.4
```

```
(19.9 126.4) (122.1 672.4)
```

```
Sauvegarde de B-segmentation au format pgm
```

```
C'est fini ...
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution$
```



```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution 170x44
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$  
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$ ls
```

A-histogramme.pgm	C3-image_bruitee.pgm	convert	FonctionDemo4.o	RS_89886.pgm	TpIFT6150-4-B	TpIFT6150-4-Cold.c	TpIFT6150-4-Dold.c
A-image_bruitee.pgm	C3-image.pgm		ICM_90394_img.pgm	satelliteIles.pgm	TpIFT6150-4-B.c	TpIFT6150-4-D	TpIFT6150-4-Dold.c~
A-image.pgm	C3-segmentation.pgm		ICM_90394_init.pgm	satelliteVille.gif	TpIFT6150-4-B.c~	TpIFT6150-4-D.c	UdM.pgm
A-segmentation.pgm	C-histogramme.pgm		ICM_90394.pgm	satelliteVille.pgm	TpIFT6150-4-C	TpIFT6150-4-D.c~	
B-histogramme.pgm	C-image_bruitee.pgm		README	tmp	TpIFT6150-4-C3	TpIFT6150-4-Dnew	
B-image_bruitee.pgm	C-image.pgm		FonctionDemo4.c	TpIFT6150-4-A	TpIFT6150-4-C3.c	TpIFT6150-4-Dnew.c	
B-image.pgm	coeur.pgm		FonctionDemo4.c~	TpIFT6150-4-A.c	TpIFT6150-4-C.c	TpIFT6150-4-Dnew.c~	
B-segmentation.pgm	compilegcc		FonctionDemo4.h	Rs_89886_img.pgm	TpIFT6150-4-A.c~	TpIFT6150-4-C.c~	TpIFT6150-4-Dold
				Rs_89886_init.pgm	TpIFT6150-4-C		

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$ ./TpIFT6150-4-C coeur 2.0  
--> Ouverture de coeur.pgm
```

```
2.116463 73.834183 Vs 0.000000 29.000000  
9.697022 93.397278 Vs 2.116463 73.834183  
14.791723 107.326675 Vs 9.697022 93.397278  
17.935936 117.111267 Vs 14.791723 107.326675  
20.194139 124.922455 Vs 17.935936 117.111267  
21.607533 130.190964 Vs 20.194139 124.922455  
22.438505 133.428894 Vs 21.607533 130.190964  
22.988001 135.637924 Vs 22.438505 133.428894  
23.256851 136.738205 Vs 22.988001 135.637924  
23.488777 137.696121 Vs 23.256851 136.738205  
23.769949 138.869934 Vs 23.488777 137.696121  
23.769949 138.869934 Vs 23.769949 138.869934
```

```
(23.769949 138.869934) (607.360718 2328.217773)
```

```
ICM  
05012 344278.156250  
00232 340299.187500  
00050 339664.562500  
00022 339304.812500  
00006 339201.468750  
00003 339179.562500  
00000 339179.562500
```

```
Sauvegarde de C-segmentation au format pgm
```

```
C'est fini ...
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```



```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution 170x44
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$  
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$ ls
```

A-histogramme.pgm	C3-image_bruitee.pgm	convert	FonctionDemo4.o	RS_89886.pgm	TpIFT6150-4-B	TpIFT6150-4-Cold.c	TpIFT6150-4-Dold.c
A-image_bruitee.pgm	C3-image.pgm		ICM_90394_img.pgm	satelliteIles.pgm	TpIFT6150-4-B.c	TpIFT6150-4-D	TpIFT6150-4-Dold.c~
A-image.pgm	C3-segmentation.pgm		ICM_90394_init.pgm	satelliteVille.gif	TpIFT6150-4-B.c~	TpIFT6150-4-D.c	UdM.pgm
A-segmentation.pgm	C-histogramme.pgm		ICM_90394.pgm	satelliteVille.pgm	TpIFT6150-4-C	TpIFT6150-4-D.c~	
B-histogramme.pgm	C-image_bruitee.pgm		README	tmp	TpIFT6150-4-C3	TpIFT6150-4-Dnew	
B-image_bruitee.pgm	C-image.pgm		README~	TpIFT6150-4-A	TpIFT6150-4-C3.c	TpIFT6150-4-Dnew.c	
B-image.pgm	coeur.pgm		FonctionDemo4.c~	RS_89886_img.pgm	TpIFT6150-4-A.c	TpIFT6150-4-Dnew.c	
B-segmentation.pgm	compilegcc		FonctionDemo4.h	RS_89886_init.pgm	TpIFT6150-4-A.c~	TpIFT6150-4-C.c~	TpIFT6150-4-Dold

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$ ./TpIFT6150-4-C coeur 3.0
```

```
--> Ouverture de coeur.pgm
```

```
2.116463 73.834183 Vs 0.000000 29.000000  
9.697022 93.397278 Vs 2.116463 73.834183  
14.791723 107.326675 Vs 9.697022 93.397278  
17.935936 117.111267 Vs 14.791723 107.326675  
20.194139 124.922455 Vs 17.935936 117.111267  
21.607533 130.190964 Vs 20.194139 124.922455  
22.438505 133.428894 Vs 21.607533 130.190964  
22.988001 135.637924 Vs 22.438505 133.428894  
23.256851 136.738205 Vs 22.988001 135.637924  
23.488777 137.696121 Vs 23.256851 136.738205  
23.769949 138.869934 Vs 23.488777 137.696121  
23.769949 138.869934 Vs 23.769949 138.869934
```

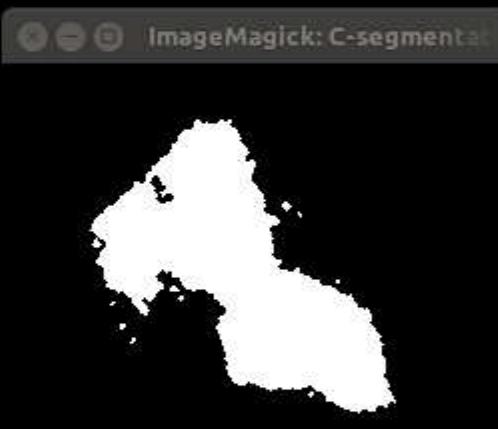
```
(23.769949 138.869934) (607.360718 2328.217773)
```

```
ICM  
05243 347937.125000  
00185 343614.281250  
00055 342557.000000  
00022 342030.531250  
00004 341991.968750  
00001 341980.812500  
00000 341980.812500
```

```
Sauvegarde de C-segmentation au format pgm
```

```
C'est fini ...
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```



mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution

mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution 170x44

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$  
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$  
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$ ls
```

A-histogramme.pgm	C3-image_bruitee.pgm	convert	FonctionDemo4.o	RS_89886.pgm	TpIFT6150-4-B	TpIFT6150-4-Cold.c	TpIFT6150-4-Dold.c
A-image_bruitee.pgm	C3-image.pgm	C-segmentation.pgm	ICM_90394_img.pgm	satelliteIles.pgm	TpIFT6150-4-B.c	TpIFT6150-4-D	TpIFT6150-4-Dold.c~
A-image.pgm	C3-segmentation.pgm	D-image_bruitee.pgm	ICM_90394_init.pgm	satelliteVille.gif	TpIFT6150-4-B.c~	TpIFT6150-4-D.c	UdM.pgm
A-segmentation.pgm	C-histogramme.pgm	D-image.pgm	ICM_90394.pgm	satelliteVille.pgm	TpIFT6150-4-C	TpIFT6150-4-D.c~	
B-histogramme.pgm	C-image_bruitee.pgm	D-segmentation.pgm	README	tmp	TpIFT6150-4-C3	TpIFT6150-4-Dnew	
B-image_bruitee.pgm	C-image.pgm	FonctionDemo4.c	README~	TpIFT6150-4-A	TpIFT6150-4-C3.c	TpIFT6150-4-Dnew.c	
B-image.pgm	coeur.pgm	FonctionDemo4.c~	RS_89886_img.pgm	TpIFT6150-4-A.c	TpIFT6150-4-C.c	TpIFT6150-4-Dnew.c~	
B-segmentation.pgm	compilegcc	FonctionDemo4.h	RS_89886_init.pgm	TpIFT6150-4-A.c~	TpIFT6150-4-C.c~	TpIFT6150-4-Dold	

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$ ./TpIFT6150-4-C coeur 4.0
```

```
--> Ouverture de coeur.pgm
```

```
2.116463 73.834183 Vs 0.000000 29.000000  
9.697022 93.397278 Vs 2.116463 73.834183  
14.791723 107.326675 Vs 9.697022 93.397278  
17.935936 117.111267 Vs 14.791723 107.326675  
20.194139 124.922455 Vs 17.935936 117.111267  
21.607533 130.190964 Vs 20.194139 124.922455  
22.438505 133.428894 Vs 21.607533 130.190964  
22.988001 135.637924 Vs 22.438505 133.428894  
23.256851 136.738205 Vs 22.988001 135.637924  
23.488777 137.696121 Vs 23.256851 136.738205  
23.769949 138.869934 Vs 23.488777 137.696121  
23.769949 138.869934 Vs 23.769949 138.869934
```

```
(23.769949 138.869934) (607.360718 2328.217773)
```

```
ICM  
05424 349400.843750  
00140 345716.437500  
00052 344272.843750  
00011 344044.968750  
00003 343992.781250  
00001 343977.656250  
00000 343977.656250
```

```
Sauvegarde de C-segmentation au format pgm
```

```
C'est fini ...
```

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```



ImageMagick: C-segmentation

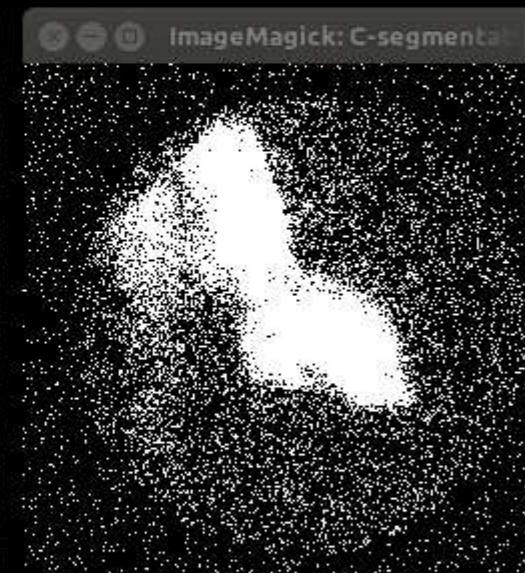


```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution$ ls
A-histogramme.pgm C3-image_bruitee.pgm convert FonctionDemo4.o RS_89886.pgm TpIFT6150-4-B TpIFT6150-4-Cold.c TpIFT6150-4-Dold.c
A-image_bruitee.pgm C3-image.pgm C-segmentation.pgm ICM_90394_img.pgm satelliteIles.pgm TpIFT6150-4-B.c TpIFT6150-4-D TpIFT6150-4-Dold.c~
A-image.pgm C3-segmentation.pgm D-image_bruitee.pgm ICM_90394_init.pgm satelliteVille.gif TpIFT6150-4-B.c~ TpIFT6150-4-D.c UdM.pgm
A-segmentation.pgm C-histogramme.pgm D-image.pgm ICM_90394.pgm satelliteVille.pgm TpIFT6150-4-C TpIFT6150-4-D.c~
B-histogramme.pgm C-image_bruitee.pgm D-segmentation.pgm README tmp TpIFT6150-4-C3 TpIFT6150-4-Dnew
B-image_bruitee.pgm C-image.pgm FonctionDemo4.c README~ TpIFT6150-4-A TpIFT6150-4-C3.c TpIFT6150-4-Dnew.c
B-image.pgm coeur.pgm FonctionDemo4.c~ RS_89886_img.pgm TpIFT6150-4-A.c TpIFT6150-4-C.c TpIFT6150-4-Dnew.c~
B-segmentation.pgm compilegcc FonctionDemo4.h RS_89886_init.pgm TpIFT6150-4-A.c~ TpIFT6150-4-C.c~ TpIFT6150-4-Dold
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$ ./TpIFT6150-4-C coeur 0.0
--> Ouverture de coeur.pgm
2.116463 73.834183 Vs 0.000000 29.000000
9.697022 93.397278 Vs 2.116463 73.834183
14.791723 107.326675 Vs 9.697022 93.397278
17.935936 117.111267 Vs 14.791723 107.326675
20.194139 124.922455 Vs 17.935936 117.111267
21.607533 130.190964 Vs 20.194139 124.922455
22.438505 133.428894 Vs 21.607533 130.190964
22.988001 135.637924 Vs 22.438505 133.428894
23.256851 136.738205 Vs 22.988001 135.637924
23.488777 137.696121 Vs 23.256851 136.738205
23.769949 138.869934 Vs 23.488777 137.696121
23.769949 138.869934 Vs 23.769949 138.869934

(23.769949 138.869934) (607.360718 2328.217773)
ICM
02953 309930.562500
00000 309930.562500

Sauvegarde de C-segmentation au format pgm

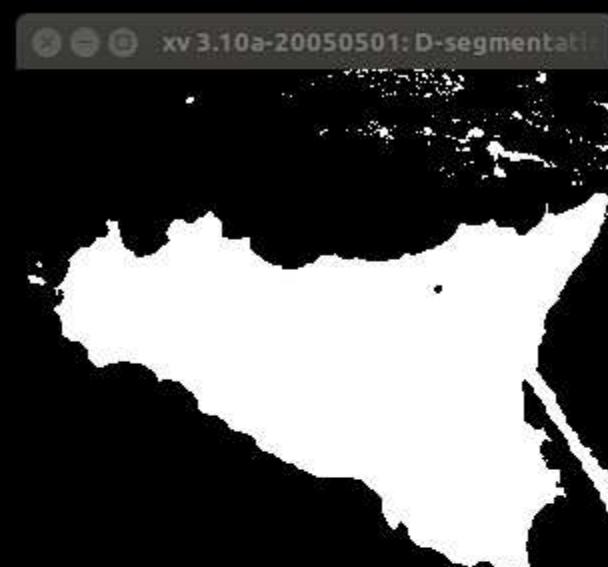
C'est fini ...
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution$ 
```



```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution
mignotte@goldorak: ~/IFT6150TPs/_5_TpIFT6150V4_4/solution 172x44
250: 4.052937 389748.656250
260: 3.665404 387927.875000
270: 3.314926 386536.593750
280: 2.997960 385482.718750
290: 2.711301 384780.562500
300: 2.452052 384530.250000
310: 2.217592 384198.375000
320: 2.005551 384075.125000
330: 1.813785 383964.281250
340: 1.640354 383833.750000
350: 1.483507 383708.468750
360: 1.341658 383758.937500
370: 1.213371 383693.156250
380: 1.097351 383593.843750
390: 0.992425 383654.312500
400: 0.897531 383656.218750
410: 0.811711 383607.937500
420: 0.734097 383598.468750
430: 0.663905 383577.281250
440: 0.600423 383587.593750
450: 0.543012 383562.781250
460: 0.491091 383574.343750
470: 0.444134 383576.000000
480: 0.401667 383611.437500
490: 0.363260 383598.562500
500: 0.328526 383598.562500
510: 0.297113 383598.187500
520: 0.268704 383598.187500
530: 0.243011 383598.187500
540: 0.219775 383598.187500
550: 0.198760 383598.187500
560: 0.179755 383598.187500
570: 0.162567 383598.187500
580: 0.147023 383598.187500
590: 0.132965 383598.187500
600: 0.120251 383598.187500
610: 0.108753 383598.187500

Sauvegarde de D-segmentation au format pgm
C'est fini ...

mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```



```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution-172x44
250: 4.052937 1555563.3
260: 3.665404 1536022.8
270: 3.314926 1523198.8
280: 2.997960 1511552.5
290: 2.711301 1506303.8
300: 2.452052 1499864.2
310: 2.217592 1496569.2
320: 2.005551 1493601.2
330: 1.813785 1491696.7
340: 1.640354 1489888.8
350: 1.483507 1488513.5
360: 1.341658 1487448.7
370: 1.213371 1486855.5
380: 1.097351 1486200.2
390: 0.992425 1485780.8
400: 0.897531 1485548.1
410: 0.811711 1485333.2
420: 0.734097 1485118.3
430: 0.663905 1485027.5
440: 0.600423 1484877.6
450: 0.543012 1484823.1
460: 0.491091 1484723.6
470: 0.444134 1484678.2
480: 0.401667 1484669.3
490: 0.363260 1484671.2
500: 0.328526 1484636.6
510: 0.297113 1484625.6
520: 0.268704 1484623.6
530: 0.243011 1484618.0
540: 0.219775 1484617.3
550: 0.198760 1484616.0
560: 0.179755 1484616.0
570: 0.162567 1484616.0
580: 0.147023 1484616.0
590: 0.132965 1484616.0
600: 0.120251 1484616.000000
610: 0.108753 1484616.000000

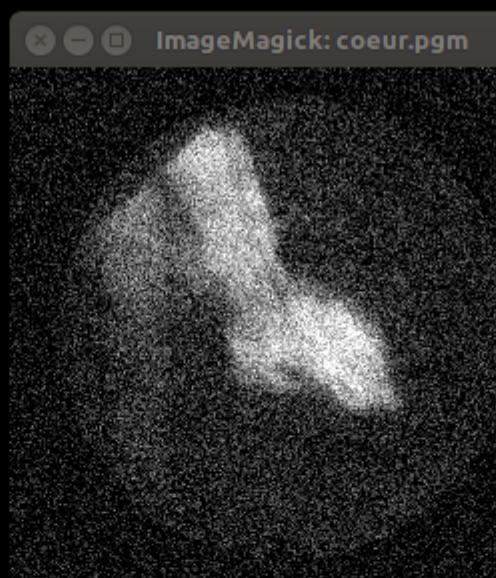
Sauvegarde de D-segmentation au format pgm
C'est fini ...
```



mignotte@goldorak: ~/IFT6150TPs/_5_TpIFT6150V4_4/solution

mignotte@goldorak: ~/IFT6150TPs/_5_TpIFT6150V4_4/solution 170x44

```
250: 4.052937 354126.750000
260: 3.665404 347690.187500
270: 3.314926 342541.843750
280: 2.997960 338886.062500
290: 2.711301 337456.406250
300: 2.452052 336582.593750
310: 2.217592 335698.062500
320: 2.005551 335366.937500
330: 1.813785 335273.500000
340: 1.640354 335111.250000
350: 1.483507 335092.093750
360: 1.341658 334991.437500
370: 1.213371 334996.937500
380: 1.097351 334964.250000
390: 0.992425 334904.125000
400: 0.897531 334858.812500
410: 0.811711 334865.125000
420: 0.734097 334864.781250
430: 0.663905 334892.250000
440: 0.600423 334868.156250
450: 0.543012 334858.906250
460: 0.491091 334855.312500
470: 0.444134 334862.843750
480: 0.401667 334865.250000
490: 0.363260 334865.187500
500: 0.328526 334864.250000
510: 0.297113 334864.250000
520: 0.268704 334864.250000
530: 0.243011 334864.250000
540: 0.219775 334864.250000
550: 0.198760 334864.250000
560: 0.179755 334864.250000
570: 0.162567 334864.250000
580: 0.147023 334864.250000
590: 0.132965 334864.250000
600: 0.120251 334864.250000
610: 0.108753 334864.250000
```



xv 3.10a-20050501:D-segm



Sauvegarde de D-segmentation au format pgm

C'est fini ...

mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution\$

```
mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solution
mignotte@goldorak: ~/IFT6150TPs/_5_TpIFT6150V4_4/solution 172x44
5850: 0.143585 334608.125000
5860: 0.142155 334608.125000
5870: 0.140740 334608.125000
5880: 0.139339 334608.125000
5890: 0.137952 334608.125000
5900: 0.136579 334608.125000
5910: 0.135219 334608.125000
5920: 0.133873 334608.125000
5930: 0.132540 334608.125000
5940: 0.131221 334608.125000
5950: 0.129915 334608.125000
5960: 0.128621 334608.125000
5970: 0.127341 334608.125000
5980: 0.126073 334608.125000
5990: 0.124818 334608.125000
6000: 0.123576 334608.125000
6010: 0.122345 334608.125000
6020: 0.121127 334608.125000
6030: 0.119922 334608.125000
6040: 0.118728 334608.125000
6050: 0.117546 334608.125000
6060: 0.116376 334608.125000
6070: 0.115217 334608.125000
6080: 0.114070 334608.125000
6090: 0.112935 334608.125000
6100: 0.111810 334608.125000
6110: 0.110697 334608.125000
6120: 0.109595 334608.125000
6130: 0.108504 334608.125000
6140: 0.107424 334608.125000
6150: 0.106355 334608.125000
6160: 0.105296 334608.125000
6170: 0.104248 334608.125000
6180: 0.103210 334608.125000
6190: 0.102183 334608.125000
6200: 0.101165 334608.125000
6210: 0.100158 334608.125000

Sauvegarde de D-segmentation au format pgm
C'est fini ...

mignotte@goldorak:~/IFT6150TPs/_5_TpIFT6150V4_4/solutions$
```

