

```

1 /* blurMinMem.c 使用メモリ最小 */
2 #include <stdio.h>
3 #include <time.h>
4 #include <sys/time.h>
5 #define M 1024
6 #define N 1024
7 int main( void )
8 {
9     FILE          *fpr, *fpw;
10    unsigned char  bcb, bc, bcf, cb, c, cf, fcb, fc, fcf;
11    double         mean;
12    int           ic, i, j;
13    double         ts, te, etimeClock, etimeGettimeofday;
14    clock_t       start, finish;
15
16    double gettimeofday_sec()
17    {
18        struct timeval tv;
19        gettimeofday(&tv, NULL);
20        return tv.tv_sec + (double)tv.tv_usec*1e-6;
21    }
22
23    fpw = fopen("blurMinMem.gray", "wb");
24    fpr = fopen("myareaNew.gray", "rb");
25
26    start=clock();
27    ts = gettimeofday_sec();
28    for(j=1; j<N-1; j++){
29        mean=0.000;
30        for(i=1; i<M-1; i++){
31            fseek(fpr, M*(j-1)+(i-1), 0);
32            bcb=fgetc(fpr); bc=fgetc(fpr); bcf=fgetc(fpr);
33            fseek(fpr, M-3, 1);
34            cb=fgetc(fpr); c=fgetc(fpr); cf=fgetc(fpr);
35            fseek(fpr, M-3, 1);
36            fcb=fgetc(fpr); fc=fgetc(fpr); fcf=fgetc(fpr);
37            mean = bcb+bc+bcf+cb+c+cf+fcb+fc+fcf;
38            mean = mean/9.0; ic = 0;
39            ic = (int) (mean + 0.5);
40            if (ic > 255) ic = 255;
41            if (ic < 0 ) ic = 0;
42            fputc(ic, fpw);
43        }
44    }
45    te = gettimeofday_sec();
46    finish=clock();
47
48    etimeGettimeofday = te - ts;
49    etimeClock=(double) (finish-start)/CLOCKS_PER_SEC;
50    printf("elapse time: %lf seconds (%lf precise sec.)\n", etimeClock, etimeGettimeofday);
51
52    fclose(fpr);
53    fclose(fpw);
54 }

```