#include <iostream>

#include <omp.h>

const int NMAX = 10000;

const int LIMIT = 1000;

void main()

{

setlocale(LC\_ALL, "rus");

int i, j;

float sum;

float\*\* a = new float\* [NMAX];

for (i = 0; i < NMAX; i++)

{

a[i] = new float[NMAX];

for (j = 0; j < NMAX; j++)

a[i][j] = i + j;

}

double start\_time = omp\_get\_wtime();

#pragma omp parallel shared(a) if (NMAX>LIMIT)

{

#pragma omp for private(i,j,sum)

for (i = 0; i < NMAX; i++)

{

sum = 0;

for (j = 0; j < NMAX; j++)

sum += a[i][j];

//printf("Сумма элементов строки %d равна %f\n", i, sum);

}

}

double end\_time = omp\_get\_wtime();

printf("\nВремя с мультипотоком: %f\n", end\_time - start\_time);

}

|  |  |  |
| --- | --- | --- |
| **RELEASE x64** | **NMAX > LIMIT** | **NMAX <= LIMIT** |
| 10 | 0,008554 |  |
| 100 | 0,004841 |  |
| 1000 | 0,005007 |  |
| 10000 | 0,005434 |  |
| 20000 | 0,004854 |  |
| 30000 | 0,006018 |  |
| 40000 |  |  |

|  |  |  |
| --- | --- | --- |
| **DEBUG x64** | **NMAX > LIMIT** | **NMAX <= LIMIT** |
| 10 | 0,006364 | 0,000010 |
| 100 | 0,004971 | 0,000055 |
| 1000 | 0,006794 | 0,003474 |
| 10000 | 0,084820 | 0,359790 |
| 20000 | 0,271606 | 1,851158 |
| 30000 | 0,665876 | 4,532611 |
| 40000 | 0,896042 | 5,363105 |
|  |  |  |