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1. 소스 코드

#include <stdio.h>

#include <stdlib.h>

#include <unistd.h>

#include <sys/time.h>

#include <pthread.h>

#include "ssu\_runtime.h"

#define THREAD\_NUM 8

struct thread\_data {

int thread\_index;

int sum;

char \*message;

};

void \*ssu\_printhello(void \*arg);

struct thread\_data thread\_data\_array[THREAD\_NUM];

char \*message[THREAD\_NUM];

int main(void)

{

pthread\_t tid[THREAD\_NUM];

int sum;

int i;

gettimeofday(&begin\_t, NULL);

sum = 0;

message[0] = "English: Hello Wordl!";

message[1] = "French: Bonjour, le monde!";

message[2] = "Spanish: Hola al mundo";

message[3] = "Kligon: Nuq neH!";

message[4] = "German: Guten Tag, Welt!";

message[5] = "Russian: Zdravstvytye, mir!";

message[6] = "Japan: Sekai e konnichiwa!";

message[7] = "Latin: Orbis, te saluto!";

for (i = 0; i < THREAD\_NUM; i++) {

sum = sum + i;

thread\_data\_array[i].thread\_index = i;

thread\_data\_array[i].sum = sum;

thread\_data\_array[i].message = message[i];

printf("Creating thread %d\n", i); // 쓰레드를 생성해서 순서대로 인자로 data를 넘겨줌

if (pthread\_create(&tid[i], NULL, ssu\_printhello, (void \*)&thread\_data\_array[i]) != 0) {

fprintf(stderr, "pthread\_create error\n");

exit(1);

}

}

sleep(5);

gettimeofday(&end\_t, NULL);

ssu\_runtime(&begin\_t, &end\_t);

exit(0);

}

void \*ssu\_printhello(void \*arg)

{

struct thread\_data \*data;

char \*message;

int thread\_index;

int sum;

sleep(1);

data = (struct thread\_data \*)arg; // 받은 인자를 읽어와서

thread\_index = data->thread\_index;

sum = data->sum;

message = data->message;

printf("Thread %d: %s Sum=%d\n", thread\_index, message, sum); // 출력

return NULL;

}

1. 실행 결과

