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/*****
* FILE: hello_arg3.c
* DESCRIPTION:
*   This "hello world" Pthreads program demonstrates an unsafe (incorrect)
*   way to pass thread arguments at thread creation. In this case, the
*   argument variable is changed by the main thread as it creates new threads.
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* LAST REVISED: 07/16/14
*****/
#include <pthread.h>
#include <stdio.h>
#include <stdlib.h>
#define NUM_THREADS      8

void *PrintHello(void *threadid)
{
    long taskid;
    sleep(1);
    taskid = *(long *)threadid;
    printf("Hello from thread %ld\n", taskid);
    pthread_exit(NULL);
}

int main(int argc, char *argv[])
{
    pthread_t threads[NUM_THREADS];
    int rc;
    long t;

    for(t=0;t<NUM_THREADS;t++) {
        printf("Creating thread %ld\n", t);
        rc = pthread_create(&threads[t], NULL, PrintHello, (void *) &t);
        if (rc) {
            printf("ERROR; return code from pthread_create() is %d\n", rc);
            exit(-1);
        }
    }

    pthread_exit(NULL);
}
```