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/**
 * main.c
 * This file sets up and runs the events and services framework
 * developed by Prof. J. Edward Carryer.
 */

#include <stdint.h>
#include <stdbool.h>
#include <stdio.h>
#include "inc/hw_types.h"
#include "inc/hw_memmap.h"
#include "driverlib/sysctl.h"
#include "driverlib/gpio.h"
#include "driverlib/interrupt.h"
#include "utils/uartstdio.h"

#include "ES_Configure.h"
#include "ES_Framework.h"
#include "ES_Port.h"
#include "termio.h"

#define clrScrn() printf("\x1b[2J")
#define goHome() printf("\x1b[1,1H")
#define clrLine() printf("\x1b[K")

int main(void) {
    // Set the clock to run at 40 MHz using the PLL and 16 MHz external crystal
    SysCtlClockSet(SYSCTL_SYSDIV_5 | SYSCTL_USE_PLL | SYSCTL_OSC_MAIN | SYSCTL_XTAL_16MHZ);
    TERMIO_Init();
    clrScrn();

    ES_Return_t ErrorType;

    /* Announce start of Mummy DDM program */
    printf("\rStarting Mummy DDM program...\r\n");

    /* Initialize the Events and Services Framework and start it running */
    ErrorType = ES_Initialize(ES_Timer_RATE_1mS);

    if (ErrorType == Success) {
        ErrorType = ES_Run();
    }

    /* If we're here, there was an error */
    switch (ErrorType) {
        case FailedPost:
            printf("Failed on attempt to Post\n");
            break;
        case FailedPointer:
            printf("Failed on NULL pointer\n");
            break;
        case FailedInit:
            printf("Failed Initialization\n");
            break;
        default:
            printf("Other Failure\n");
            break;
    }

    while (1); // loop forever

```

