

main.c

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/*
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 *
 * Created on: Sep 22, 2014
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 */

#include "intervalTimer.h"
#include "buttons.h"
#include <stdio.h>
#include "xil_io.h"

int main() {
    double duration0, duration1, duration2;
    buttons_init();
    intervalTimer_initAll();
    intervalTimer_resetAll();
    // Poll the push-buttons waiting for BTN0 to be pushed.
    printf("Interval Timer Accuracy Test\n\r");
    printf("waiting until BTN0 is pressed.\n\r");
    while (!(buttons_read() & 0x1));
    intervalTimer_start(0);
    intervalTimer_start(1);
    intervalTimer_start(2);
    printf("started timers.\n\r");
    printf("waiting until BTN1 is pressed.\n\r");
    while (!(buttons_read() & 0x2));
    intervalTimer_stop(0);
    intervalTimer_stop(1);
    intervalTimer_stop(2);
    printf("stopped timers.\n\r");
    intervalTimer_getTotalDurationInSeconds(0, &duration0);
    intervalTimer_getTotalDurationInSeconds(1, &duration1);
    intervalTimer_getTotalDurationInSeconds(2, &duration2);
    printf("Time Duration 0: %6.2e seconds.\n\r", duration0);
    printf("Time Duration 1: %6.2e seconds.\n\r", duration1);
    printf("Time Duration 2: %6.2e seconds.\n\r", duration2);
}
```