

Jeremiah Webb

Student ID: 2545328

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//Made/modified by Jeremiah Webb Student ID: 2545328
//#include <stm32l476xx.h> // Comment out this file while using simulator
#include <stdio.h>
#include <stdint.h>
#include <stdbool.h>

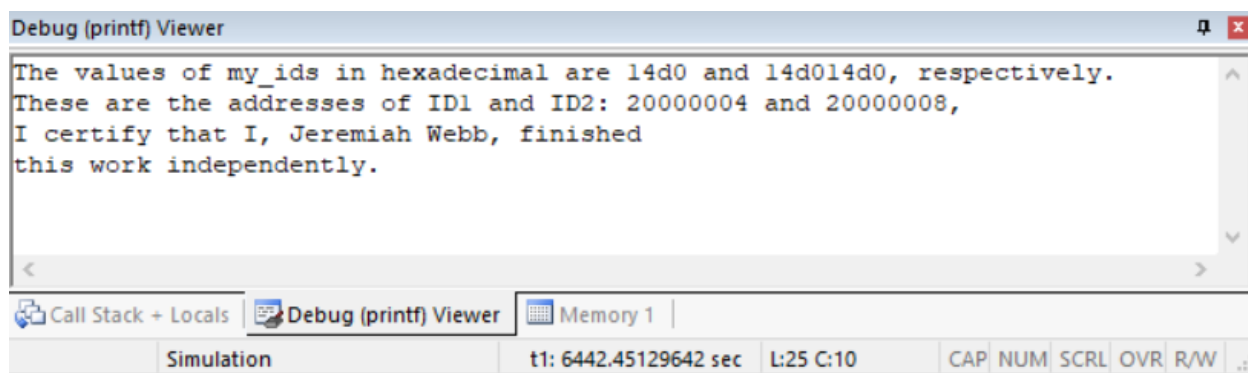
typedef struct {
    uint16_t ID1;
    uint32_t ID2;
} MyType;

bool need_to_print = true;
MyType myid;
MyType *p_id = &myid;

int main(void) {
    myid.ID1 = 5328;
    myid.ID2 = myid.ID1 + (myid.ID1 << 16);
    if (need_to_print) {
        printf("The values of my_ids in hexadecimal are %04x and %08x, respectively.\n",
p_id->ID1, p_id->ID2);
    }
    printf("These are the addresses of ID1 and ID2: %p and %p,\n", &p_id->ID1, &p_id-
>ID2);

    printf("I certify that I, Jeremiah Webb, finished \n");
    printf("this work independently.\n");
    while (1);
}
```

Printout results:



The screenshot shows a 'Debug (printf) Viewer' window with the following output text:

```
The values of my_ids in hexadecimal are 14d0 and 14d014d0, respectively.
These are the addresses of ID1 and ID2: 20000004 and 20000008,
I certify that I, Jeremiah Webb, finished
this work independently.
```

Below the output text, there is a toolbar with three tabs: 'Call Stack + Locals', 'Debug (printf) Viewer' (which is selected), and 'Memory 1'. At the bottom of the window, there is a status bar with the following information: 'Simulation', 't1: 6442.45129642 sec', 'L:25 C:10', and a table with headers 'CAP', 'NUM', 'SCRL', 'OVR', and 'R/W'.