
CS 371
Assignment #1
Getting to know your friends Olly and Masm :)

Due 9/11/08, in class

The goal of this assignment is to get acquainted with `dos`, `masm32`, `link`, and `ollydbg` by doing the following steps:

- (1) Download (and rename :) `template.asm` file from the course web page.
- (2) Using `masm32` (and preferably `vi`), edit the template to create an assembly program that computes $result = ax^2 + bx + c$. Declare a , b , c , and x as initialized data and $result$ as uninitialized data. Don't forget to start with the header comment!
- (3) In `masm32` build a console application (`project` → `console build all`).
- (4) Run it (`project` → `run program`).
- (5) Start a dos shell and run your program in the shell.
- (6) Start `ollydbg` then load and step through the first five instructions of your program using F7.
- (7) Step through the remaining instructions of your program using F7.

What to hand in

- (1) A well-formatted 2-up printout of your program source code.
- (2) Create and print a single-page document that contains
 - a screen captures showing the `dos` window right after Step 4,
 - a screen captures showing the `ollydbg` window right after your program terminates, and
 - a sentence that describes
 - the output of Step 4
 - the output of Step 5
 - from Step 6, the value of `EIP` after 5 instructions (i.e., 5 presses of the F7 key).

Extra Credit

- (1) Add an overflow check that sets $result$ to zero if a computation produces an overflow.