

```
#include <stdlib.h>
#include <iostream.h>
#include <fstream.h>
#include <stdio.h>
#include "Machine.h"

void main(int argc, char *argv[], char *envp[])
{
    if (argc < 5)
    {
        cerr << "\nUsage: Simulator <executable_input> <program_input> "
              << "<program_output> <trace_output>\n";
        exit(1);
    }
    Machine m;

    fstream main_input;
    main_input.open(argv[1], ios::in);
    fstream aux_input;
    aux_input.open(argv[2], ios::in);
    fstream outs;
    outs.open(argv[3], ios::out);
    fstream t_outs;
    t_outs.open(argv[4], ios::out);

    m.Load_This(main_input, outs, t_outs);
    outs << "\nBeing Program Output:\n";
    m.Simulate_This(aux_input, outs, t_outs);
    outs << "\nEnd Program Output\n";

    t_outs << "\nFinal Register, PC, and Memory Values:\n";
    p.Dump_Regs(t_outs);
    t_outs << '\n';
    mem.Dump_Mem(t_outs);
    t_outs << "\nProgram ended normally.\n";

    main_input.close();
    aux_input.close();
    outs.close();
    t_outs.close();

    exit(1);
}
```