

```

1 #include"simulator.h"
2
3
4
5 int main(int argc, char *argv[]){
6     char input[100];
7     char temp1[100];
8     char temp2[100];
9     void * memory = NULL;
10    int system_size = 0;
11    int loaded = 0;
12    int program_begin = 0;
13    int program_end = 0;
14    if(argv[1] == 0)
15    {
16        memory = malloc(hex_to_dex("5000"));
17        memset(memory, '.', hex_to_dex("5000"));
18        system_size = hex_to_dex("5000");
19        printf("system memory from 0x0 ~ 0x%X\n", system_size);
20    }
21    else
22    {
23        system_size = hex_to_dex(argv[1]);
24        printf("system memory from 0x0 ~ 0x%X\n", system_size);
25        memory = malloc(system_size);
26        memset(memory, '.', system_size);
27    }
28
29
30    temp2[0] = '\0';
31    temp2[1] = '\0';
32    temp1[0] = '\0';
33
34    //CPU
35    cpu_t cpu;
36    cpu.A = 0;
37    cpu.X = 0;
38    cpu.L = 0;
39    cpu.PC = 0;
40    cpu.SW = 0;
41
42
43
44
45    while(1)
46    {
47        printf(">>> ");
48        fgets(input, 100, stdin);
49        sscanf(input, "%s %s", temp1, temp2);
50
51        if(strcmp(temp1, "exit") == 0)
52        {
53            free(memory);
54            break;
55        }
56
57        else if(strcmp(temp1, "show") == 0)
58        {
59            show(memory, temp2, argv[1]);
60            temp2[0] = '\0';
61            temp2[1] = '\0';
62            temp1[0] = '\0';
63        }
64
65        else if(strcmp(temp1, "load") == 0)
66        {
67            if(loaded == 0)
68            {
69                load(temp2, memory, &program_begin, &program_end, &loaded);
70            }
71            else
72            {
73                printf("error , an object code has been load\n");
74            }
75
76
77            temp2[0] = '\0';
78            temp2[1] = '\0';

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79         temp1[0] = '\0';
80     }
81
82     else if(strcmp(temp1, "unload") == 0)
83     {
84         memset(memory, '.', system_size);
85         cpu.A = 0;
86         cpu.X = 0;
87         cpu.L = 0;
88         cpu.PC = 0;
89         cpu.SW = 0;
90         loaded = 0;
91         temp2[0] = '\0';
92         temp2[1] = '\0';
93         temp1[0] = '\0';
94         printf("A : %06X  X : %06X  L : %06X  PC : %06X  SW : %06X\n\n", cpu.A,
cpu.X, cpu.L, cpu.PC, cpu.SW);
95     }
96
97     else if(strcmp(temp1, "run") == 0)
98     {
99         run(&program_begin, &program_end, memory, &cpu);
100         temp2[0] = '\0';
101         temp2[1] = '\0';
102         temp1[0] = '\0';
103         printf("A : %06X  X : %06X  L : %06X  PC : %06X  SW : %06X\n\n", cpu.A,
cpu.X, cpu.L, cpu.PC, cpu.SW);
104     }
105
106     else
107     {
108         printf("command not find\n");
109     }
110 }
111 }
112
113
114

```