

시스템 S/W 실습7

학번: 2016110056

학과: 불교학부

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2. 다음에 주어진 파일 입출력 프로그램을 참고하여 SIC srcfile을 assemble 할 때 출력되는 OBJFILE을 읽어서 각 줄의 TAG(첫 글자)가 'T'인 줄을 TAG, ADDR, LENGTH, CODES로 분리하고, 분리된 것 중에서 CODES에 해당하는 내용을 메모리 내부표현(internal representation)으로 변화(Code conversion)하고, 문자코드로 표현된 CODES와 코드변환된 InCodes(각 문자를 변환하여 10진법 표기 값)을 출력하는 프로그램을 구현하고실습하시오.

Listing 1: 실행 파일의 소스

```
#include<iostream>
#include<iomanip>
#include<fstream>
#include<sstream>
using namespace std;
int main(int argc, char** v)
{
    ifstream f(v[1]);
    char c;
    while(f >> c) {
        string s;
        if(c == 'T') {
            cout << "TAG: " << c;
            f \gg setw(6) \gg s;
            cout << ", ADDR : " << s;
            f \gg setw(2) \gg s;
            cout << ", LEN : " << s << endl;
            char ch[ stoi (s, nullptr, 16) ];
            for(int i=0; i < stoi(s, nullptr, 16); <math>i++) f >> ch[i];
            cout << "CODE : ";
            for(auto& a : ch) cout << a;
            cout << "\nHCODE : ";</pre>
            for(auto& a : ch) {
                if (a >= 'A') cout << a - 55 << ',';
                else cout << a - '0' << ', ';
            }
            cout << endl;
        }
    }
```

Listing 2: 임의의 srcfile

Listing 2: 임의의 srcme
HCOPY 00000001071
T00100014123431211233123312AB
T0010141390F20484820293E203F

E000000

```
 🖯 🗊 zezeon@ubuntuZ: ~/Programming/SIC
CODE : 123431211233123312AB
HCODE : 1,2,3,4,3,1,2,1,1,2,3,3,1,2,3,3,1,2,10,11,
TAG : T, ADDR : 001014, LEN : 13
CODE: 90F20484820293E203F
HCODE : 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
zezeon@ubuntuZ:~/Programming/SIC$ vi test.o
zezeon@ubuntuZ:~/Programming/SIC$ vi test.o
zezeon@ubuntuZ:~/Programming/SIC$ ./pass2.x test.o
TAG : T, ADDR : 001000, LEN : 14
CODE : 123431211233123312AB
HCODE : 1,2,3,4,3,1,2,1,1,2,3,3,1,2,3,3,1,2,10,11,
TAG : T, ADDR : 001014, LEN : 13
CODE: 90F20484820293E203F
HCODE: 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
TAG : T, ADDR : 001014, LEN : 13
CODE: 90F20484820293E203F
HCODE : 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
TAG : T, ADDR : 001014, LEN : 13
CODE: 90F20484820293E203F
HCODE : 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
TAG : T, ADDR : 001014, LEN : 13
CODE : 90F20484820293E203F
HCODE: 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
TAG: T,
        ADDR: 001014, LEN: 13
CODE: 90F20484820293E203F
HCODE: 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
TAG : T, ADDR : 001014, LEN : 13
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TAG : T, ADDR : 001014, LEN : 13
CODE : 90F20484820293E203F
HCODE : 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
TAG : T, ADDR : 001014, LEN : 13
CODE : 90F20484820293E203F
HCODE : 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
TAG : T, ADDR : 001014, LEN : 13
CODE : 90F20484820293E203F
HCODE: 9,0,15,2,0,4,8,4,8,2,0,2,9,3,14,2,0,3,15,
zezeon@ubuntuZ:~/Programming/SIC$
```

소감

스트림 클래스가 유용했다.