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1 // [訊息解碼/Message Decoding](1/2)
2 #define IN "P11IN.txt"
3 #define OUT "P11OUT.txt"
4 //*****
5 #include <iostream>
6 #include <ctime>
7 using namespace std;
8 void redir(void);
9 //*****
10 /* Work Space*/
11 int readcodes(void);
12 int readint(int c);
13
14 int code[8][128];
15 //*****
16 int main(void)
17 {
18     redir(); //redirection
19 //*****
20 /* Work Space*/
21     int len;
22     int v;
23     char ch;
24
25     while(readcodes()){
26         for(;;){
27             len = readint(3);
28             if(len == 0) break;
29             for(;;){
30                 v = readint(len);
31                 if(v == (1<<len)-1) break;
32                 putchar(code[len][v]);
33             }
34         }
35         putchar('\n');
36     }
37 //*****
38     freopen("CON", "r", stdin); //取消重新導向
39     freopen("CON", "w", stdout);
40
41     printf("Time used = %.2f\n", (double)clock()/CLK_TCK); //傳回程式目前為止執行的時間
42
43     system("pause");
44     return 0; //the end...
45 }
46
47 void redir(void)
48 {
49     freopen(IN, "r", stdin);
50     freopen(OUT, "w", stdout);
51 }
52 //*****
53
54
55
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64 //[訊息解碼/Message Decoding](2/2)
65 /* Work Space*/
66 //建立解碼表
67 int readcodes(void)
68 {
69     int len, i;
70     char ch;
71
72     memset(code, 0, sizeof(code)); //清空陣列
73
74     while((ch = getchar()) == '\n');//跳過分行符號
75     if(ch == EOF) return 0;
76     code[1][0] = ch;
77
78     for(len = 2; len <=7; len++){
79         for(i=0; i< (1<<len)-1; i++){
80             ch = getchar();
81             if(ch == '\n') return 1;
82             code[len][i] = ch;
83         }
84     }
85 }
86
87 //讀取長度為c的01字串(二進位整數)，並將其轉換為十進位整數
88 int readint(int c)
89 {
90     int v = 0;
91     int ch;
92
93     while(c--){
94         while((ch = getchar()) == '\n');//跳過分行符號，因為編碼文字可能由多行組成
95         v = v*2 + ch-'0';
96     }
97     return v;
98 }
99
100 //Input(IN) Sample
101 /*
102 TNM AEIOU
103 0010101100011
104 1010001001110110011
105 11000
106 $$$*\
107 0100000101101100011100101000
108 */
109
110 //Output(OUT)
111 /*
112 TAN ME
113 $$$*\$
114 */

```