

PROGRAM (1PASS MACRO):

```
#include <stdio.h>
#include <string.h>
void main() {
char macros[20][10], label[20], opcode[20],
operand[20];
int m = 0;
FILE *fp1, *fp[10];
fp1 = fopen("inputm.txt", "r");
if (fp1 == NULL) {
printf("Error opening input file.\n");
return;
}
fscanf(fp1, "%s %s %s", label, opcode,
operand);
while (strcmp(opcode, "END") != 0) {
if (!strcmp(opcode, "MACRO")) {
fp[m] = fopen(operand, "w");
if (fp[m] == NULL) {
printf("Error opening output file %s.\n",
operand);
return;
}
m++;
fscanf(fp1, "%s %s %s", label, opcode,
operand);
while (strcmp(opcode, "MEND") != 0) {
fprintf(fp[m-1], "%s\t%s\t%s\n", label, opcode,
operand);
fscanf(fp1, "%s %s %s", label, opcode,
operand);
}
fclose(fp[m-1]);
}
fscanf(fp1, "%s %s %s", label, opcode,
operand);
}
fclose(fp1);
}
```

INPUT FILE:

inputm.txt:

```
** MACRO m1.txt
** LDA ALPHA
** STA BETA
** MEND **
** MACRO m2.txt
** MOV a,b
** MEND **
** START 1000
** LDA a
** CALL m1.txt
** CALL m2.txt
**END**
```

OUTPUT FILE:

m1.txt:

```
**      LDA   ALPHA
**      STA   BETA
```

m2.txt:

```
**      MOV   a,b
```