

PASS 1:

1. instruction 的 location counter 以及對應 source program

Loc	Source statement		
1000	COPY	START	1000
1000	FIRST	STL	RETADR
1003	CLOOP	JSUB	RDREC
1006		LDA	LENGTH
1009		COMP	ZERO
100C		JEQ	ENDFIL
100F		JSUB	WRREC
1012		J	CLOOP
1015	ENDFIL	LDA	EOF
1018		STA	BUFFER
101B		LDA	THREE
101E		STA	LENGTH
1021		JSUB	WRREC
1024		LDL	RETADR
1027		RSUB	
102A	EOF	BYTE	C'EOF'
102D	THREE	WORD	3
1030	ZERO	WORD	0
1033	RETADR	RESW	1
1036	LENGTH	RESW	1
1039	BUFFER	RESB	4096

2. symbol table

Label Name	Address
FIRST	1000
CLOOP	1003
ENDFIL	1015
EOF	102A
.....
RETADR	1033

PASS 2:

1. source program

(前後需分別加入 location counter 以及 object code)

Loc	Source statement			Object code
1000	COPY	START	1000	
1000	FIRST	STL	RETADR	141033
1003	CLOOP	JSUB	RDREC	482039
1006		LDA	LENGTH	001036
1009		COMP	ZERO	281030
100C		JEQ	ENDFIL	301015
100F		JSUB	WRREC	482061
1012		J	CLOOP	3C1003
1015	ENDFIL	LDA	EOF	00102A
1018		STA	BUFFER	0C1039
101B		LDA	THREE	00102D
101E		STA	LENGTH	0C1036
1021		JSUB	WRREC	482061
1024		LDL	RETADR	081033
1027		RSUB		4C0000
102A	EOF	BYTE	C'EOF'	454F46
102D	THREE	WORD	3	000003
1030	ZERO	WORD	0	000000
1033	RETADR	RESW	1	
1036	LENGTH	RESW	1	
1039	BUFFER	RESB	4096	

2. final object program

```

HCOPY 00100000107A
T0010001E1410334820390010362810303010154820613C100300102A0C103900102D
T00101E150C10364820610810334C0000454F46000003000000
T0020391E041030001030E0205D30203FD8205D2810303020575490392C205E38203F
T0020571C1010364C0000F1001000041030E02079302064509039DC20792C1036
T002073073820644C000005
E001000

```

Figure 2.3 Object program corresponding to Fig. 2.2.