

PLC →

xx

add r0,r1,r2

add r3,r4,r5

cmp r0,r3

yy

sub r5,r6,r7

xx

0x8

yy

0x10

Assembly code

Symbol table

```
        ORG 100
label1  ADR r4,c
        LDR r0,[r4]
label2  ADR r4,d
        LDR r1,[r4]
label3  SUB r0,r0,r1
```

PLC = ??    →    label1    ORG 100  
  ADR r4,c  
  LDR r0,[r4]  
  label2    ADR r4,d  
  LDR r1,[r4]  
  label3    SUB r0,r0,r1

**Code**



**Symbol table**

PLC = 100 →

|        |              |
|--------|--------------|
|        | ORG 100      |
| label1 | ADR r4,c     |
|        | LDR r0,[r4]  |
| label2 | ADR r4,d     |
|        | LDR r1,[r4]  |
| label3 | SUB r0,r0,r1 |

Code



Symbol table

PLC = 100 → label1

ORG 100

ADR r4,c

LDR r0,[r4]

label2 ADR r4,d

LDR r1,[r4]

label3 SUB r0,r0,r1

Code



Symbol table

PLC = 100 → label1

ORG 100

ADR r4,c

LDR r0,[r4]

label2 ADR r4,d

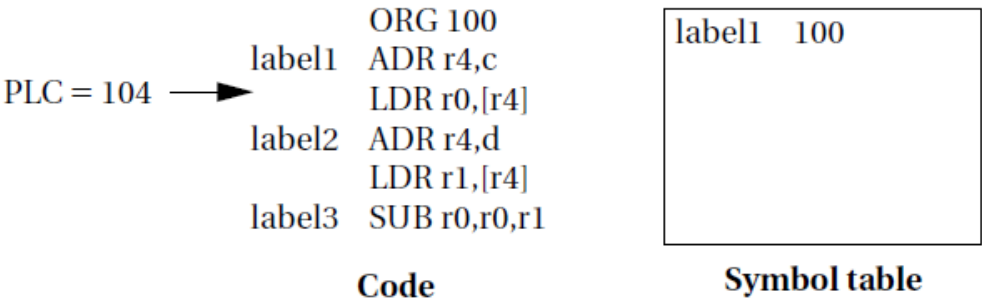
LDR r1,[r4]

label3 SUB r0,r0,r1

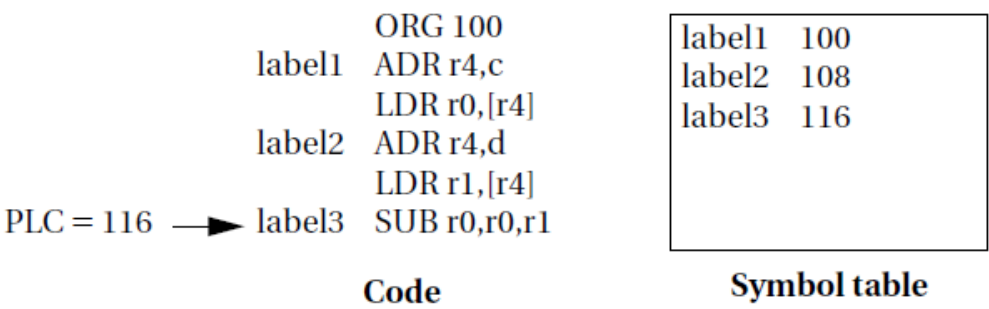
Code

|        |     |
|--------|-----|
| label1 | 100 |
|--------|-----|

Symbol table







```
    ADD r0,r1,r2
FOO EQU 5
BAZ SUB r3,r4,#FOO
```

label1    LDR r0,[r1]  
          ...  
          ADR a  
          ...  
          B label2  
var1      % 1

| External references | Entry points |
|---------------------|--------------|
| a                   | label1       |
| label2              | var1         |

File 1

label2    ADR var1  
          ...  
          B label3  
          ...  
x          % 1  
y          % 1  
a          % 10

| External references | Entry points |
|---------------------|--------------|
| var1                | label2       |
| label3              | x            |
|                     | y            |
|                     | a            |

File 2