

Linker Example
Two Source Files

```
PROG2      CSECT
           EXTREF      SUB1,SUB2
           EXTDEF      PROG2,VAR1
           JSUB  SUB1
           LDA  X'AB',I
           STA  VAR1
           JSUB  SUB2
           HALT
VAR1       RESW 1
SUB1       CSECT
           EXTDEF      SUB1
           RSUB

SUB2       CSECT
           EXTDEF      SUB2
           EXTREF      VAR1
           LDA  =X'1'
           STA  VAR1
           RSUB
```

What the Assembler Should Generate

```
HPROG2 000012      HSUB2 00000C
DPROG2 000000      DSUB2 000000
DVAR1 000000F      M000009
M480000SUB1        M0C0000VAR1
T0090AB           T4C0000
M0C000F           T000001
M480000SUB2
TFF0000
T000000
HSUB1 000003
DSUB1 000000
T4C0000
```

The linker must resolve addressing concerns. One way to do so is to make an external symbol table in which identifiers and addresses are stored.