

Princeton University

COS 217: Introduction to Programming Systems

Assembler Output for 15testpass2movl.s

After Pass 1:

Symbol Table

| Label | Section | Byte Offset | Local/Global | Label Sequence # |
|--------------------|---------|-------------|--------------|------------------|
| labelLocal0 | text | 2 | local | 0 |
| labelGlobal | text | 6 | global | 1 |
| labelLocal1 | text | 35 | local | 2 |
| labelUndefined | ? | ? | global | 3 |
| labelInDiffSection | data | 0 | local | 4 |

Relocation Records

| Section | Byte Offset | Relocation Type | Label Sequence # |
|---------|-------------|-----------------|------------------|
| text | 9 | R_386_32 | 0 |
| text | 14 | R_386_32 | 2 |
| text | 19 | R_386_32 | 1 |
| text | 24 | R_386_32 | 3 |
| text | 29 | R_386_32 | 4 |

Data Section

| Byte Offset | Contents (hex) | Explanation |
|-------------|----------------|---------------|
| 0 | 6a | .asciz "junk" |
| 1 | 75 | |
| 2 | 6e | |
| 3 | 6b | |
| 4 | 00 | |

Text Section

| Byte Offset | Contents (hex) | Explanation |
|-------------|----------------|---------------------------------|
| 0-1 | 01 c0 | addl %eax, %eax |
| 2-3 | 01 c0 | addl %eax, %eax |
| 4-5 | 01 c0 | addl %eax, %eax |
| 6-7 | 01 c0 | addl %eax, %eax |
| 8-12 | b8 00 00 00 00 | movl \$labelLocal0, %eax |
| 13-17 | b8 00 00 00 00 | movl \$labelLocal1, %eax |
| 18-22 | b8 00 00 00 00 | movl \$labelGlobal, %eax |
| 23-27 | b8 00 00 00 00 | movl \$labelUndefined, %eax |
| 28-32 | b8 00 00 00 00 | movl \$labelInDiffSection, %eax |
| 33-34 | 01 c0 | addl %eax, %eax |
| 35-46 | 01 c0 | addl %eax, %eax |

After Pass 2 (no changes):

Symbol Table

| Label | Section | Byte Offset | Local/Global | Label Sequence # |
|--------------------|---------|-------------|--------------|------------------|
| labelLocal0 | text | 2 | local | 0 |
| labelGlobal | text | 6 | global | 1 |
| labelLocal1 | text | 35 | local | 2 |
| labelUndefined | ? | ? | global | 3 |
| labelInDiffSection | data | 0 | local | 4 |

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