

Example

Contents of the source file test.asm.

```
; File: test.asm

        ORG $0000          ; initialize the reset vector at address 0000h
        AJMP *+$0032

        ORG $0032          ; start the main code at address 0032h
start   NOP
        CPL P1.0           ; toggle bit 0 on Port 1
        LJMP start
```

Contents of the listing file test.lst after executing 'asm51 test -F'.

```
DUNFIELD 8051 ASSEMBLER: test                                PAGE: 1

0000          1 ; File: test.asm
0000          2
0000          3          ORG $0000          ; initialize the reset vector at address 0000h
0000 01 32    4          AJMP *+$0032
0002          5
0032          6          ORG $0032          ; start the main code at address 0032h
0032 00      7 start   NOP
0033 B2 90    8          CPL P1.0           ; toggle bit 0 on Port 1
0034 02 00 32 9          LJMP start
```

Contents of the Motorola S-Record file test.hex after executing 'asm51 test -F'.

```
S10500000132C7
S109003200B2900200324E
S9030000FC
```

Contents of the Intel Hex Record file test.hex after executing 'asm51 test -F -I'.

```
:020000000132CB
:0600320000B29002003252
:00000001FF
```

Examine the contents of the Motorola S-Record and Intel Hex files above and be able to identify each field in each record. Verify the checksums for the lines in each file. Note that each byte of machine code translates into two bytes of ASCII characters in the hex record file (i.e., each hex nybble is represented as one ASCII byte). Note that the carriage return and line feed data for each hex record are not displayed.