```
 1
 2  AVRASM ver. 2.2.7  E:\ESE_280\$MyDocuments$\Atmel Studio\7.0\lab_6              ↵
        \conditional_input_hdwe\conditional_input_hdwe\main.asm Tue Oct 13 20:14:54  ↵
        2020
 3
 4  E:\ESE_280\$MyDocuments$\Atmel Studio\7.0\lab_6\conditional_input_hdwe           ↵
        \conditional_input_hdwe\main.asm(9): Including file 'C:/Program Files (x86)   ↵
        \Atmel\Studio\7.0\Packs\atmel\ATmega_DFP\1.3.300\avrasm\inc\m4809def.inc'
 5  E:\ESE_280\$MyDocuments$\Atmel Studio\7.0\lab_6\conditional_input_hdwe           ↵
        \conditional_input_hdwe\main.asm(9): Including file 'C:/Program Files (x86)   ↵
        \Atmel\Studio\7.0\Packs\atmel\ATmega_DFP\1.3.300\avrasm\inc\m4809def.inc'
 6
 7
 8                                      ; conditional_input_hdwe.asm
 9                                      ;
10                                      ; Created: 10/6/2020 6:38:10 PM
11                                      ; Author : hp
12                                      ;
13
14                                      .list
15
16
17                                      ; Replace with your application code
18                                      start:
19  000000 e000                             ldi r16, $00
20  000001 ef1f                             ldi r17, $FF
21  000002 b900                              out VPORTA_DIR, r16
22  000003 b91c                             out VPORTD_DIR, r17
23  000004 b90d                             out VPORTD_OUT, r16
24  000005 9880                             cbi VPORTE_DIR, 0
25  000006 9a81                             sbi VPORTE_DIR, 1
26
27                                      check_flag:
28  000007 9a89                             sbi VPORTE_OUT, 1
29  000008 9990                             sbic VPORTE_IN, 0
30  000009 cffd                             rjmp check_flag
31
32                                      sw_led_io:
33  00000a b102                             in r16, VPORTA_IN
34  00000b 9500                             com r16
35  00000c b90d                             out VPORTD_OUT, r16
36  00000d 9889                             cbi VPORTE_OUT, 1
37
38
39  RESOURCE USE INFORMATION
40  ------------------------
41
42  Notice:
43  The register and instruction counts are symbol table hit counts,
```

```
44  and hence implicitly used resources are not counted, eg, the
45  'lpm' instruction without operands implicitly uses r0 and z,
46  none of which are counted.
47
48  x,y,z are separate entities in the symbol table and are
49  counted separately from r26..r31 here.
50
51  .dseg memory usage only counts static data declared with .byte
52
53  "ATmega4809" register use summary:
54  x  :   0 y  :   0 z  :   0 r0 :   0 r1 :   0 r2 :   0 r3 :   0 r4 :   0
55  r5 :   0 r6 :   0 r7 :   0 r8 :   0 r9 :   0 r10:   0 r11:   0 r12:   0
56  r13:   0 r14:   0 r15:   0 r16:   6 r17:   2 r18:   0 r19:   0 r20:   0
57  r21:   0 r22:   0 r23:   0 r24:   0 r25:   0 r26:   0 r27:   0 r28:   0
58  r29:   0 r30:   0 r31:   0
59  Registers used: 2 out of 35 (5.7%)
60
61  "ATmega4809" instruction use summary:
62  .lds  :   0 .sts  :   0 adc   :   0 add   :   0 adiw  :   0 and    :   0
63  andi  :   0 asr   :   0 bclr  :   0 bld   :   0 brbc  :   0 brbs  :   0
64  brcc  :   0 brcs  :   0 break :   0 breq  :   0 brge  :   0 brhc  :   0
65  brhs  :   0 brid  :   0 brie  :   0 brlo  :   0 brlt  :   0 brmi  :   0
66  brne  :   0 brpl  :   0 brsh  :   0 brtc  :   0 brts  :   0 brvc  :   0
67  brvs  :   0 bset  :   0 bst   :   0 call  :   0 cbi   :   2 cbr   :   0
68  clc   :   0 clh   :   0 cli   :   0 cln   :   0 clr   :   0 cls   :   0
69  clt   :   0 clv   :   0 clz   :   0 com   :   1 cp    :   0 cpc   :   0
70  cpi   :   0 cpse  :   0 dec   :   0 des   :   0 eor   :   0 fmul  :   0
71  fmuls :   0 fmulsu:   0 icall :   0 ijmp  :   0 in    :   1 inc   :   0
72  jmp   :   0 ld    :   0 ldd   :   0 ldi   :   2 lds   :   0 lpm   :   0
73  lsl   :   0 lsr   :   0 mov   :   0 movw  :   0 mul   :   0 muls  :   0
74  mulsu :   0 neg   :   0 nop   :   0 or    :   0 ori   :   0 out   :   4
75  pop   :   0 push  :   0 rcall :   0 ret   :   0 reti  :   0 rjmp  :   2
76  rol   :   0 ror   :   0 sbc   :   0 sbci  :   0 sbi   :   2 sbic  :   1
77  sbis  :   0 sbiw  :   0 sbr   :   0 sbrc  :   0 sbrs  :   0 sec   :   0
78  seh   :   0 sei   :   0 sen   :   0 ser   :   0 ses   :   0 set   :   0
79  sev   :   0 sez   :   0 sleep :   0 spm   :   0 st    :   0 std   :   0
80  sts   :   0 sub   :   0 subi  :   0 swap  :   0 tst   :   0 wdr   :   0
81
82  Instructions used: 8 out of 114 (7.0%)
83
84  "ATmega4809" memory use summary [bytes]:
85  Segment   Begin    End      Code   Data   Used    Size    Use%
86  -------------------------------------------------------------
87  [.cseg] 0x000000 0x00001e    30      0     30    49152   0.1%
88  [.dseg] 0x002800 0x002800     0      0      0     6144   0.0%
89  [.eseg] 0x000000 0x000000     0      0      0      256   0.0%
90
91  Assembly complete, 0 errors, 0 warnings
92
```