ATmega48P/88P/168P/328P

```
0x001C
                 jmp
                        TIMO_COMPA
                                          ; Timer0 Compare A Handler
0x001E
                 jmp
                        TIM0_COMPB
                                          ; Timer0 Compare B Handler
0 \times 0020
                 jmp
                        TIMO OVF
                                          ; Timer0 Overflow Handler
0 \times 0022
                                          ; SPI Transfer Complete Handler
                        SPI_STC
                 qmj
0 \times 0024
                                          ; USART, RX Complete Handler
                 jmp
                        USART_RXC
0 \times 0026
                 qmr
                        USART UDRE
                                          ; USART, UDR Empty Handler
0x0028
                        USART_TXC
                                          ; USART, TX Complete Handler
                 jmp
0x002A
                                          ; ADC Conversion Complete Handler
                 jmp
                        ADC
0x002C
                        EE_RDY
                                          ; EEPROM Ready Handler
                 jmp
0x002E
                 qmj
                        ANA_COMP
                                          ; Analog Comparator Handler
0 \times 0030
                                          ; 2-wire Serial Interface Handler
                 jmp
                        TWI
0 \times 0032
                 jmp
                        SPM_RDY
                                          ; Store Program Memory Ready Handler
0x0033RESET:
                 ldi
                        r16, high(RAMEND); Main program start
0 \times 0034
                 out
                        SPH, r16
                                          ; Set Stack Pointer to top of RAM
0 \times 0035
                 ldi
                        r16, low(RAMEND)
0 \times 0036
                 out.
                        SPL, r16
0 \times 0037
                 sei
                                          ; Enable interrupts
0x0038
                 <instr>
                           XXX
```

When the BOOTRST Fuse is unprogrammed, the Boot section size set to 2K bytes and the IVSEL bit in the MCUCR Register is set before any interrupts are enabled, the most typical and general program setup for the Reset and Interrupt Vector Addresses in ATmega328P is:

```
Address Labels Code
                                         Comments
0x0000
        RESET: ldi
                        r16, high (RAMEND); Main program start
0x0001
                        SPH, r16
                                         ; Set Stack Pointer to top of RAM
                out.
0 \times 0002
                ldi
                        r16, low(RAMEND)
0x0003
                out
                        SPL, r16
0x0004
                                         ; Enable interrupts
                sei
0 \times 0005
                <instr> xxx
.org 0x3C02
0x3C02
                                         ; IRQ0 Handler
                 jmp
                        EXT_INT0
                                           IRQ1 Handler
0x3C04
                        EXT_INT1
                 jmp
                 . . .
                        . . .
0x3C32
                 jmp
                        SPM_RDY
                                         ; Store Program Memory Ready Handler
```

When the BOOTRST Fuse is programmed and the Boot section size set to 2K bytes, the most typical and general program setup for the Reset and Interrupt Vector Addresses in ATmega328P is:

```
Address Labels Code Comments
.org 0x0002

0x0002    jmp    EXT_INTO    ; IRQ0 Handler
0x0004    jmp    EXT_INT1    ; IRQ1 Handler
...    ;
0x0032    jmp    SPM_RDY    ; Store Program Memory Ready Handler
;
```

