

9 Motion Complete Interrupt

Motion complete (MC) interrupt indicates the completion of motion generated by the following commands:

```
AXMOVE      (all family members)
STOP
CUBIC_INT
```

MC interrupt, doesn't need to be re-enabled each time one is generated. However, to detect additional MC interrupts, after each MC occurrence, the MC interrupt register must be cleared.

The program first enables the motion complete interrupt. This is done after the signals interrupt register is cleared. A trapezoidal motion command (`AXMOVE`) for axes 1 and 2 moves these axes to position 30000. Upon the receipt of an MC interrupt we preset the position of axis 4 (unconnected to an amplifier) to the value 444. Next, the MC interrupt register is cleared to accept another interrupt. The second `AXMOVE` command moves axes 1 and 2 back to position 0, 0. Upon the receipt of an MC interrupt we preset the position of axis 4 to the value 555.

```
plc_program:
    run_m_program (motion_complete_int)
end

motion_complete_int:
    int_reg_clr(0x4, 0x3)      ;clear motion complete interrupt
                              ; register
    en_motcp(0x3)             ;enable motion complete interrupt

    axmove(0x3, .1, 30000, 5, .1, 30000, 5)
    wait_until(motcp_reg & 0x0003);wait for motion of axes 1&2
                              ; to be completed

    pos_preset(0x8, 444)      ;indicate the completion of motion
    int_reg_clr(0x4, 0x3)      ;clear motion complete interrupt
```

Motion Complete Interrupt

```
                                ; register  
  
    axmove(0x3, .1, 0, 5, .1, 0, 5)    ;move axes back to the  
                                        ;starting point  
  
    wait_until(motcp_reg & 0x0003)    ;wait until motion is  
                                        ; completed  
  
    pos_preset(0x8, 555)  
  
end
```