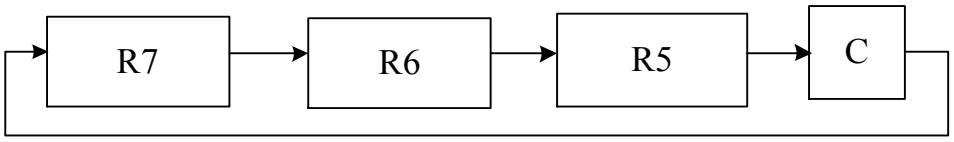
```
; R7.R6 = (R5-1)/4 + K
; if (C = 1)  K = R2 + 50h/4
; else  K = 4(R1 + R2)
;
; Author: Redko Alexander
; Date: 21.12.2012
;

      SEL RB0
      MOV R5, #0FFh
      MOV R1, #0FFh
      MOV R2, #0FFh

      CLR C
      MOV A, R5
      ADD A, #FFh  ; A := R5 - 1
      CLR C
      RRC A
      CLR C
      RRC A
      MOV R6, A ; R6 := (R5 - 1)/4

      CLR C
      JC flag_c_1
      MOV A, #50h
      CLR C
      RRC A
      CLR C
      RRC A
      CLR C
      ADDC A, R2
      MOV R3, A
      MOV A, R4
      ADDC A, #0h
      MOV R4, A   ; R4.R3 = R2 + 50h/4
      JMP addition

flag_c_1:
      CLR C
      MOV A, R1
      ADDC A, R2
      MOV R3, A
      CLR A
      ADDC A, #0h
      MOV R4, A   ; R4.R3 = R1 + R2

      CLR C
      MOV A, R3
      RLC A
      MOV R3, A
      MOV A, R4
      RLC A
      MOV R4, A

      CLR C
      MOV A, R3
      RLC A
      MOV R3, A
      MOV A, R4
      RLC A
```

```
        MOV R4, A

addition:
      MOV A, R6
      ADD A, R3
      MOV R6, A
      MOV A, R4
      ADDC A, #00h
      MOV R7, A        ; R7.R6 = R4.R3 + R6

      NOP
      END
```




```
; shift of 24 bit word by 4 bits to the right

            MOV R5, #0h
            MOV R6, #0FFh
            MOV R7, #0FFh

            MOV R2, #4h
loop:       MOV     A, R7
            RRC     A
            MOV     R7, A
            MOV     A, R6
            RRC     A
            MOV     R6, A
            MOV     A, R5
            RRC     A
            MOV     R5, A
            DJNZ    R2, loop
            END
```