

```
1      AREA    handle_pend, CODE, READONLY
2      EXTERN task_switch
3      GLOBAL PendSV_Handler
4      PRESERVE8
5      PendSV_Handler
6          ;Load PSP into r0
7          MRS r0, PSP
8
9          ;Store the registers, decrementing in memory from the address stored in r0
10         STMDB r0!, {r4-r11}
11
12         ;Call kernel task switch
13         BL task_switch
14
15         ;Load into r0 the updated PSP, belonging to the new thread to run
16         MRS r0, PSP
17         MOV LR, #0xFFFFFFFF ;magic return value to get us back to Thread mode
18
19         ;Load Multiple Increment After. Load the context stored in the memory locations above the
address stored in r0
20         LDMIA r0!, {r4-r11}
21
22
23         ;Set PSP to the final location of r0
24         MSR PSP, r0
25
26         ;Return
27         BX LR
28
29     END
```