

```

1  /*****
2  *
3  *
4  *
5  *
6  *
7  *
8  *
9  *****/
10 *
11 * File           : counter.c
12 * Version        : 1.0
13 *
14 *****/
15 *
16 * Description    : Managing time counters for application
17 *                  based on timer (1 by default)
18 *
19 *****/
20 *
21 * Author         : Miguel Santos
22 * Date           : 14.09.2023
23 *
24 *****/
25 *
26 * MPLAB X        : 5.45
27 * XC32           : 2.50
28 * Harmony        : 2.06
29 *
30 *****/
31
32 #ifndef COUNTER_H
33 #define COUNTER_H
34
35 /*****/
36
37 #include <stdint.h>
38 #include <stdbool.h>
39
40 /*****/
41
42 #define TIMER_PERIOD_MS 1
43
44 /*****/
45
46 typedef struct{
47     uint32_t value;
48     uint32_t target;
49 }S_Counter;
50
51 /*****/
52
53 void CNT_Initialize(S_Counter *counter, uint32_t target);
54
55 /*****/
56
57 bool CNT_Check( S_Counter *counter );
58
59 /*****/
60 void CNT_Set( S_Counter *counter, uint32_t target );
61 void CNT_Reset( S_Counter *counter );
62
63 /*****/
64
65 void CNT_CallBack( void );
66
67 /*****/
68
69 #endif /* COUNTER_H */
70
71 /* End of File *****/
72

```