

```

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39 *
40 */
41
42 /**
43 *  @file    runtime_stats_light.c
44 *  @author  foxBMS Team
45 *  @date    18.03.2019 (date of creation)
46 *  @ingroup ENGINE
47 *  @prefix  DIAG
48 *
49 *  @brief   Diagnosis for task runtime implementation
50 *
51 *  This diagnostic module allows the monitoring of task runtimes and
52 *  jitter versus the expected call times.

```

```

53  */
54
55  /*===== Includes =====*/
56  #include "runtime_stats_light.h"
57
58  #include "os.h"
59
60  /*===== Macros and Definitions =====*/
61
62  /*===== Constant and Variable Definitions =====*/
63
64  /*===== Function Prototypes =====*/
65
66  /*===== Function Implementations =====*/
67
68  void diag_calc_runtime_stats(TASK_METRICS_s *task_metric, uint32_t expected_call_period, uint32_t
tick_entry_into_wait) {
69      uint32_t new_lastCalltime = OS_getOSSysTick();
70      task_metric->call_period = new_lastCalltime - task_metric->lastCalltime;
71      task_metric->jitter = expected_call_period - task_metric->call_period;
72      task_metric->wait_ticks = new_lastCalltime - tick_entry_into_wait;
73      task_metric->lastCalltime = new_lastCalltime;
74      return;
75  }
76

```