|  |  |
| --- | --- |
| Name: | SwTimerCbf\_t |
| Type: | Pointer to function that returns void and takes no argument |
| Description: | Defined type from which we can create instance that points to the cbf |

|  |  |  |  |
| --- | --- | --- | --- |
| **Name:** | SwTimerMode\_t | | |
| **Type:** | Enumeration |  | |
| **Range** | SwTimerMode\_periodic | 0 | For periodic functions |
|  | SwTimerMode\_once | 1 | Functions that will be executed only one time |
| **Description:** | Call back function modes | | |

|  |  |  |
| --- | --- | --- |
| **Name:** | CbfList\_t | |
| **Type:** | Structure | |
| **Elements:** | func | Pointer to function that points to the call back function. |
| mode | Stores call back function mode |
|  | timerMs | When the function will be called  {ex: if timerMs = 2 then the function will be called every 2 ms in periodic mode or after 2 ms in once mode} |
|  | reload | Store Time\_ms as Backup for the periodic mode |
| **Description:** | Stores the selected configuration for call back function | |

|  |  |  |  |
| --- | --- | --- | --- |
| Function name: | SwTimer\_init | | |
| Arguments: | Input | -- | -- |
|  |  |  | |
|  | Output | -- | -- |
|  |  | |
|  | Input/Output | -- | |
|  |
| Return | -- | -- | |
|  | -- | -- | |
| Description: | Initializes the SwTimer with the required configuration | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Function name: | **SwTimer\_register\_cbf** | | |
| Arguments: | Input | time\_ms | u32 |
| Time to call the scheduled function | |
| mode | SwTimerMode\_t |
| Function mode “Periodic or once” | |
| cbf | SwTimerCbf\_t |
| Pointer to the function that will be added to the schedule | |
|  |  | |
| Output | NextFree | static u32 |
| This variable will be incremented. Nextfree is static global variable that indicates the next free position to store another function in the cbfList | |
| cbfList | static cbfList\_t |
| The new call back function configuration will be add as new instance of this array | |
|  |  | |
| Input / Output | -- | |
| Return | E\_OK | 0 | |
| E\_NOK | 1 | |
| Description: | Store the call back function in list to be scheduled. The function sets the cbfList array and increments the Nextfree variable | | |