

# SPT Event Logger

Last updated by | Nick Higgins | Sep 22, 2022 at 2:31 PM EDT

---

## Contents

- [Overview](#)
- [Functions](#)
  - [F\\_ClearAllEventsInClass](#)
  - [F\\_CreateAllEventsInClass](#)
  - [F\\_GetMaxSeverityRaised](#)
  - [F\\_RaiseAlarm](#)
  - [F\\_RaiseAlarmAndSetFlags](#)
  - [F\\_RaiseAlarmWithStringParameters](#)
  - [F\\_RaiseAlarmWithStringsAndFlags](#)

## Overview

Contain helper functions for interacting with the Tc3\_EventLogger library.

## Functions

### F\_ClearAllEventsInClass

```
FUNCTION F_ClearAllEventsInClass
VAR_IN_OUT
    Alarms : ARRAY[*] OF FB_TcAlarm; //!< Array of Alarms to be defined
END_VAR
```

Clears any events within `Alarms` that may have been raised.

### F\_CreateAllEventsInClass

```
FUNCTION F_CreateAllEventsInClass
VAR_IN_OUT
    Alarms : ARRAY[*] OF FB_TcAlarm; //!< Array of Alarms to be defined
END_VAR

VAR_INPUT
    ClassSize : UDINT;                //!< Size in bytes of the event class
    pInitEvent : POINTER TO TcEventEntry; //!< Address of first event in Event Class (Should be the InitReferen
    Prefix : STRING;                  //!< String Prefix for the Event Message -- Usually the Module ID and
END_VAR
```

Initializes all instances of `FB_TcAlarm` within `Alarms`. See [BT-2922840077-220922-1646.pdf](#).

## F\_GetMaxSeverityRaised

```
FUNCTION F_GetMaxSeverityRaised : TcEventSeverity {!! Maximum severity
VAR_IN_OUT
    Alarms : ARRAY[*] OF FB_TcAlarm; {!! Events to compare against
END_VAR

VAR_INPUT
    CurrentSeverity : TcEventSeverity; {!! Current severity of module alarm
END_VAR
```

Returns the highest severity level of any events currently raised within `Alarms`.

## F\_RaiseAlarm

```
FUNCTION F_RaiseAlarm
VAR_IN_OUT
    Alarm : FB_TcAlarm; {!! Alarm to be raised
END_VAR
```

Raises event associated with `Alarm`.

## F\_RaiseAlarmAndSetFlags

```
FUNCTION F_RaiseAlarmAndSetFlags
VAR_IN_OUT
    Alarm      : FB_TcAlarm; {!! Alarm to be raised
    ErrorFlag  : BOOL;        {!! Error flag to set (VAR_IN_OUT, put the variable you want the function to SET h
    ErrorID    : UDINT;       {!! Error ID to set (VAR_IN_OUT, put the variable you want the function to SET her
END_VAR
```

Raises event associated with `Alarm`, sets `ErrorFlag` to `TRUE`, and copies the `eventID` associated with `Alarm` into `ErrorID`.

## F\_RaiseAlarmWithStringParameters

```
FUNCTION F_RaiseAlarmWithStringParameters
VAR_IN_OUT
    Alarm : FB_TcAlarm; {!! Alarm to be raised
END_VAR

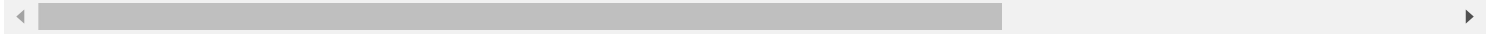
VAR_INPUT
    String_1 : STRING; {!! First string parameter
    String_2 : STRING; {!! Second string parameter
    String_3 : STRING; {!! Third string parameter
END_VAR
```

Raises event associated with `Alarm` and passes `String_n` as arguments for contextual information.

## F\_RaiseAlarmWithStringsAndFlags

```
FUNCTION F_RaiseAlarmWithStringsAndFlags
VAR_IN_OUT
    Alarm      : FB_TcAlarm; /// Alarm to be raised
    ErrorFlag  : BOOL;      /// Error flag to set (VAR_IN_OUT, put the variable you want the function to SET h
    ErrorID    : UDINT;     /// Error ID to set (VAR_IN_OUT, put the variable you want the function to SET her
END_VAR

VAR_INPUT
    String_1 : STRING; /// First string parameter
    String_2 : STRING; /// Second string parameter
    String_3 : STRING; /// Third string parameter
END_VAR
```



Raises event associated with `Alarm`, sets `ErrorFlag` to `TRUE`, and copies the `eventID` associated with `Alarm` into `ErrorID`. `String_n` are passed as arguments for contextual information.