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Event Groups (or 'flags')

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FreeRTOS+TCP:

Thread safe TCP/IP stack

FreeRTOS+FAT:

Thread aware file system

FreeRTOS+ Ecosystem

Internet of Things:

Innovative complete solution

Fail Safe File System:

Ensures data integrity

InterNiche TCP/IP:

Low cost pre-ported libraries

FreeRTOS BSPs:

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FAT SL File System:

Super lean FAT FS

UDP/IP:

Thread aware UDP stack

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Safety:

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Delivered online or on-site

IO:

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xEventGroupCreate()

[Event Group API]

Available From FreeRTOS V8.0.0

event_groups.h

```
EventGroupHandle_t xEventGroupCreate( void );
```

Create a new RTOS [event group](#). This function cannot be called from an interrupt.

Event groups are stored in variables of type `EventGroupHandle_t`. The number of bits (or flags) implemented within an event group is 8 if `configUSE_16_BIT_TICKS` is set to 1, or 24 if `configUSE_16_BIT_TICKS` is set to 0. The dependency on `configUSE_16_BIT_TICKS` results from the data type used for thread local storage in the internal implementation of RTOS tasks.

The RTOS source file `FreeRTOS/source/event_groups.c` must be included in the build for the `xEventGroupCreate()` function to be available.

Parameters:

None

Returns:

If the event group was created then a handle to the event group is returned. If there was insufficient [FreeRTOS heap](#) available to create the event group then NULL is returned.

Example usage:

```
/* Declare a variable to hold the created event group. */
EventGroupHandle_t xCreatedEventGroup;

/* Attempt to create the event group. */
xCreatedEventGroup = xEventGroupCreate();

/* Was the event group created successfully? */
if( xCreatedEventGroup == NULL )
{
    /* The event group was not created because there was insufficient
    FreeRTOS heap available. */
}
else
{
    /* The event group was created. */
}
```

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