SWITCH_driver

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Data Structure Documentation

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Data Fields

- u32 **pin**
- void * **port**
- u32 **pullState**

The documentation for this struct was generated from the following file:

- D:/Technical/ITI/Embedded Computer Architecture/Tasks/CodeDocs/SWITCH.h

Chapter 4

File Documentation

4.1 D:/Technical/ITI/Embedded Computer Architecture/Tasks/CodeDocs/SWITCH.h File Reference

This file is the SWITCH driver.

Data Structures

- struct switchmap_t

Macros

- #define **PULL_UP** 1
- #define **PULL_DOWN** 2
- #define **PRESSED** 1
- #define **RELEASED** 0
- #define **MAX_COUNTS** 5

Functions

- ERROR_STATUS SwitchTask_Init (u32 switchNum)

  This function shall initialize specific switch by setting its pin, port, mode and configuration in a GPIO object and passing it to GPIO module.
- ERROR_STATUS Switch_GetSwitchState (u32 switchNum, u8 ∗switchValue)

  This function shall return the specified switch state which can be PRESSED or RELEASED.
- ERROR_STATUS SwitchTask_GetSwitchState (u32 switchNum, u8 ∗switchValue)

  This function shall return the specified switch state which can be PRESSED or RELEASED. Used with scheduler.
- void switchTask (void)

  This function represents the scheduler task to invoke switch.

4.1.1 Detailed Description

This file is the SWITCH driver.

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4.1.2 Function Documentation

4.1.2.1 Switch_GetSwitchState()

```
ERROR_STATUS Switch_GetSwitchState (
            u32 switchNum,
            u8 * switchValue )
```

This function shall return the specified switch state which can be PRESSED or RELEASED.

Parameters

switchNum	holds the index of the switch in the switch array
switchValue	Pointer to hold the switch value

Returns

ERROR_STATUS
status_Ok : If reading the switch state goes correctly
status_Nok : If any error occured during reading

4.1.2.2 switchTask()

```
void switchTask (
            void  )
```

This function represents the scheduler task to invoke switch.

Parameters

void	

Returns

void

4.1.2.3 SwitchTask_GetSwitchState()

```
ERROR_STATUS SwitchTask_GetSwitchState (
            u32 switchNum,
            u8 * switchValue )
```

This function shall return the specified switch state which can be PRESSED or RELEASED. Used with scheduler.

Parameters

switchNum	holds the index of the switch in the switch array
switchValue	Pointer to hold the switch value

Returns

ERROR_STATUS
status_Ok : If reading the switch state goes correctly
status_Nok : If any error occured during reading

4.1.2.4 SwitchTask_Init()

```
ERROR_STATUS SwitchTask_Init (
            u32 switchNum )
```

This function shall initialize specific switch by setting its pin, port, mode and configuration in a GPIO object and passing it to GPIO module.

Parameters

switchNum	holds the index of the switch in the switch array

Returns

ERROR_STATUS
status_Ok : If the initialization is done successfully
status_Nok : If any error occured during initialization

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