mbed-lib

1.0

Generated by Doxygen 1.7.5.1

Thu Nov 3 2011 14:27:40

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# **Chapter 1**

# File Index

## 1.1 File List

Here is a list of all documented files with brief descriptions:

mbed.h																		3
mbed_can.h																		??
mbed_gpio.h																		??
mbed_led.h																		??
mbed_musb.h																		??
mbed_serial.h																		??
mbed_timer.h																		??

2 File Index

# **Chapter 2**

# **File Documentation**

## 2.1 mbed.h File Reference

```
#include "LPC17xx.h" #include "mbed_can.h" #include "mbed-
_gpio.h" #include "mbed_led.h" #include "mbed_musb.h" x
#include "mbed_serial.h" #include "mbed_timer.h"
```

#### **Defines**

- #define INIT\_LED (1 << 1)
- #define INIT\_MUSB (1 << 2)
- #define INIT SERIAL0 (1 << 3)
- #define INIT\_SERIAL1 (1 << 4)
- #define INIT\_SERIAL2 (1 << 5)
- #define INIT\_CAN0 (1 << 6)
- #define INIT\_CAN1 (1 << 7)
- #define INIT\_TIMER0 (1 << 8)</li>
   #define INIT\_TIMER1 (1 << 9)</li>
- #define INIT\_TIMER2 (1 << 10)
- #define INT\_TIMETIZ (1 << 10)
- #define INIT\_TIMER3 (1 << 11)
- #define INIT GPI (1 << 12)</li>
- #define INIT\_GPO (1 << 13)</li>
- #define MBED\_SYS\_INIT (1 << 0)
- #define MBED\_LED\_INIT (1 << 1)</li>
- #define MBED\_MUSB\_INIT (1 << 2)</li>
  #define MBED\_SERIAL0\_INIT (1 << 3)</li>
- #define MBED\_SERIAL1\_INIT (1 << 4)
- #define MBED\_SERIAL2\_INIT (1 << 5)
- #define MBED\_CAN0\_INIT (1 << 6)
- #define **MBED\_CAN1\_INIT** (1 << 7)
- #define MBED\_TIMER0\_INIT (1 << 8)</li>

- #define MBED\_TIMER1\_INIT (1 << 9)</li>
- #define MBED\_TIMER2\_INIT (1 << 10)</li>
- #define MBED\_TIMER3\_INIT (1 << 11)</li>
- #define MBED\_GPI\_INIT (1 << 12)</li>
- #define **MBED\_GPO\_INIT** (1 << 13)
- #define **MBED\_GPIOX** (1 << 0)
- #define **MBED GPIO5** (1 << 1)
- #define MBED\_GPIO6 (1 << 2)</li>
- #define **MBED\_GPIO7** (1 << 3)
- #define **MBED GPIO8** (1 << 4)
- # do ... o MDED\_ON (4 < < 5)
- #define **MBED\_GPIO9** (1 << 5)
- #define MBED\_GPIO10 (1 << 6)</li>
   #define MBED\_GPIO11 (1 << 7)</li>
- #define **MBED\_GPIO12** (1 << 8)
- #define **MBED GPIO13** (1 << 9)
- #define **MBED GPIO14** (1 << 10)
- #define MBED\_GPIO15 (1 << 11)</li>
- #define MBED\_GPIO16 (1 << 12)
- #define **MBED\_GPIO17** (1 << 13)
- #define MBED\_GPIO18 (1 << 14)
- #define MBED\_GPIO19 (1 << 15)</li>
- #define **MBED\_GPIO20** (1 << 16)
- #define MBED GPIO21 (1 << 17)</li>
- #define **MBED GPIO22** (1 << 18)
- #define MBED\_GPI022 (1 << 18)</li>
   #define MBED\_GPI023 (1 << 19)</li>
- #define MBED\_GPIO24 (1 << 20)</li>
  #define MBED\_GPIO25 (1 << 21)</li>
- #define **MBED\_GPIO26** (1 << 22)
- #define **MBED\_GPIO27** (1 << 23)
- #define MBED GPIO28 (1 << 24)
- #define MBED\_GPIO29 (1 << 25)
- #define **MBED\_GPIO30** (1 << 26)
- #define MBED\_GPIO\_P0 (MBED\_GPIO5 | MBED\_GPIO6 | MBED\_GPIO7 | MBED\_GPIO8 | MBED\_GPIO9 | MBED\_GPIO10 | MBED\_GPIO11 | MBED\_GPIO12 | MBED\_GPIO13 | MBED\_GPIO14 | MBED\_GPIO15 | MBED\_GPIO16 | MBED\_GPIO17 | MBED\_GPIO18 | MBED\_GPIO27 | MBED\_GPIO28 | MBED\_GPIO29 | MBED\_GPIO30)
- #define MBED\_GPIO\_P1 (MBED\_GPIO19 | MBED\_GPIO20)
- #define MBED\_GPIO\_P2 (MBED\_GPIO21 | MBED\_GPIO22 | MBED\_GPIO23 | MBED\_GPIO24 | MBED\_GPIO25 | MBED\_GPIO26)
- #define MBED SERIAL0 0
- #define MBED\_SERIAL1 1
- #define MBED SERIAL2 2
- #define MBED CAN0 0
- #define MBED\_CAN1 1
- #define MBED\_TIMER0 0
- #define MBED\_TIMER1 1
- #define MBED\_TIMER2 2
- #define MBED\_TIMER3 3

### **Functions**

• void initSys (uint32\_t)

### **Variables**

• volatile uint32\_t mbedStatus

### 2.1.1 Detailed Description

In this file are all necessary defines for the mbed platform. Also, all all header files are included here for convience, so that including this header file is sufficient.

#### 2.1.2 Define Documentation

2.1.2.1 #define INIT\_CAN0 (1 << 6)

CAN on DIP 9/10 (CAN1).

2.1.2.2 #define INIT\_CAN1 (1 << 7)

CAN on DIP 29/30 (CAN2).

2.1.2.3 #define INIT\_GPI (1 << 12)

Initialize general purpose input ports.

2.1.2.4 #define INIT\_GPO (1 << 13)

Initialize general purpose output ports.

2.1.2.5 #define INIT\_LED (1 << 1)

Initialize the four blue LEDs.

2.1.2.6 #define INIT\_MUSB (1 << 2)

Serial on mini USB-B port (UART0).

2.1.2.7 #define INIT\_SERIAL0 (1 << 3)

Serial on DIP 13/14 (UART1).

2.1.2.8 #define INIT\_SERIAL1 (1 << 4)

Serial on DIP 27/28 (UART2).

2.1.2.9 #define INIT\_SERIAL2 (1 << 5)

Serial on DIP 9/10 (UART3).

2.1.2.10 #define INIT\_TIMER0 (1 << 8)

Initialize TIMER0.

2.1.2.11 #define INIT\_TIMER1 (1 << 9)

Initialize TIMER1.

2.1.2.12 #define INIT\_TIMER2 (1 << 10)

Initialize TIMER2.

2.1.2.13 #define INIT\_TIMER3 (1 << 11)

Initialize TIMER3.