```
/************************* C HEADER FILE *******************************
**
**   Project:    UART0 Driver for CL2bm1
**   Filename:   Uart0_dr1.h
**   Date:       17.12.2017
**
**   Modified    R.Oliva  - Include interrupt routines in C separate file (test)
**
**********************************************************************
**
**
**********************************************************************
**
**   VERSION HISTORY:
**   ----------------
**   initial Version:    1.0
**   Date:        17.12.2017
**   Revised by: R.Oliva
**   Description:
**        -
**        - Newer versions see top.
**
**
**
**********************************************************************/

#ifndef UART0_INCLUDED
#define UART0_INCLUDED

/*********************************************************************
**
**     MODULES USED
**
**********************************************************************/
#include <stdio.h>

/*********************************************************************
**
**     DEFINITIONS AND MACROS
**
**********************************************************************/

#ifndef RXB8
#define RXB8 1
#endif

#ifndef TXB8
#define TXB8 0
#endif

#ifndef UPE
#define UPE 2
#endif

#ifndef DOR
#define DOR 3
#endif

#ifndef FE
#define FE 4
#endif

#ifndef UDRE
#define UDRE 5
#endif

#ifndef RXC
```

```c
#define RXC 7
#endif

#define FRAMING_ERROR (1<<FE)
#define PARITY_ERROR (1<<UPE)
#define DATA_OVERRUN (1<<DOR)
#define DATA_REGISTER_EMPTY (1<<UDRE)
#define RX_COMPLETE (1<<RXC)

// USART0 Receiver buffer
// #define RX_BUFFER_SIZE0 8
// New value 22.3.2012
#define RX_BUFFER_SIZE0 24

// USART0 Transmitter buffer
// New value 22.3.2012
// #define TX_BUFFER_SIZE0 8
#define TX_BUFFER_SIZE0 24


/***************************************************************************
**
**      EXPORTED VARIABLES
**      declared here, but defined in .c file for global access.. 18.12.2017
**
***************************************************************************/

extern char rx_buffer0[RX_BUFFER_SIZE0];

#if RX_BUFFER_SIZE0 <= 256
extern unsigned char rx_wr_index0,rx_rd_index0,rx_counter0;
#else
extern unsigned int rx_wr_index0,rx_rd_index0,rx_counter0;
#endif

// This flag is set on USART0 Receiver buffer overflow
extern bit rx_buffer_overflow0;


extern char tx_buffer0[TX_BUFFER_SIZE0];

#if TX_BUFFER_SIZE0 <= 256
extern unsigned char tx_wr_index0,tx_rd_index0,tx_counter0;
#else
extern unsigned int tx_wr_index0,tx_rd_index0,tx_counter0;
#endif


/***************************************************************************
**
**      EXPORTED FUNCTIONS
**      functions public to rest of program 18.12.2017
**
***************************************************************************/

// Interrupt routines
interrupt [USART0_RXC] void usart0_rx_isr(void);
interrupt [USART0_TXC] void usart0_tx_isr(void);

// Alternate getchar() defined with ISR Rx support
char getchar(void);

// ****************************************************************
// ** GetByte() Added for Modbus Inputs - transfer Bytes not chars..**
// ** v1.0 30-05-2012 - Used by MB_Serial() FromModbusTest2()        **
```

```c
// *****************************************************************
unsigned char GetByte(void);

// Alternate putchar() defined with ISR Tx support
void putchar(char c);

// *****************************************************************
// ** PutByte() Added for Modbus output - transfer Bytes not chars..**
// ** v1.0 30-05-2012 - Used by FinaliseTransmit and ExceptionResp()**
// *****************************************************************
void PutByte(unsigned char txbyte);

// USART0_Init standard 19200,N,8,1 TxRx ISR support
void USART0_Init(void);

#endif
/****************************************************************************
**
**      EOF
**
****************************************************************************/
```