

## Chapter 10: bugs and clarifications

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## Chapter 10: Drivers and ISRs (pg 235)

## 1 Section: Introducing the UART (page 236)

- **Additional info**, page 237
  - The pin specifications for the board are defined in the board's user-manual
    - *STM32 Nucleo-144 boards : User manual*
  - Page 32 shows the connectors

CN8			
NC	NC	D43	PC8
IOREF	IOREF	D44	PC9
RESET	RESET	D45	PC10
+3V3	+3V3	D46	PC11
+5V	+5V	D47	PC12
GND	GND	D48	PD2
GND	GND	D49	PG2
VIN	VIN	D50	PG3
PA3	A0	D61	PD7
PC0	A1	D62	PD6
PC3	A2	D63	PD5
PF3	A3	D64	PD4
PF5	A4	D65	PD3
PF10	A5	GND	GND
NC	D72	D56	PE2
PA7	D71	D67	PE4
PF2	D70	D68	PE5
PF1	D69	D69	PE6
PF0	D68	D60	PE3
GND	GND	D61	PF8
PD0	D67	D62	PF7
PD1	D66	D63	PF9
PG0	D65	D64	PG1
CN9			

- **Clarification**, pg 239
  - For step 5:
    - The book doesn't state where that code is. It's in `initUart4Pins()`, in the file:
      - `C:\projects\packtBookRTOS\BSP\UartQuickDirtyInit.c`
    - `initUart4Pins()` is called from `STM_UartInit()`. Both functions are in that file.
  - For step 6:
    - The book doesn't state where the function-call is. It's in `STM_UartInit()`, also in:
      - `C:\projects\packtBookRTOS\BSP\UartQuickDirtyInit.c`
    - My notes:
      - `STM_UartInit()` is called from all of the Chapter 10 example-programs in the directory:
        - `C:\projects\packtBookRTOS\Chapter_10\Src\`
          - `mainUartDMABuff.c`
          - `mainUartDMAStreamBuffer.c`
          - `mainUartDMAStreamBufferCont.c`
          - `mainUartInterruptBuff.c`
          - `mainUartInterruptQueue.c`
          - `mainUartPolled.c`
          - `Uart4Setup.c`
  - For step 9:
    - `UartQuickDirtyInit.c` is referenced, and it includes the two functions: `initUart2Pins()` and `initUart4Pins()`.
      - I was initially puzzled by those functions as I misread their names:
        - For `initUart2Pins()`, the intended reading of the name is: "initialize UART-2's pins".
        - How I initially read the name was: "initialize the UART to operate with 2 pins"
      - Also, `initUart2Pins()` is misnamed as it initializes USART-2, not UART-2.
- **Bug in the code** (`UartQuickDirtyInit.c`), page 239
  - There's a typo in this comment, in `initUart2Pins()`:
    - `//PD5 is USART2_RX PD6 is USART2_TX`
  - The comment should be:
    - `//PD6 is USART2_RX PD5 is USART2_TX`

## 2 Section: Creating a polled UART driver (page 241)

- **Bug in the code** (`Chapter_10.jdebug`), page 241
  - Each chapter's `.jdebug` file has the same bugs
  - The bugs, and their solution, are described in the study-guide's web-page on [Ozone](#).
- **Bug in the code** (`mainUartPolled.c`), page 241
  - **Problem:**