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Chapter 11: bugs and clarifications

12/4/2021

Chapter 11: Sharing Hardware Peripherals across Tasks (pg 289)

1 Section: Understanding shared peripherals (pg 290)

- Bug in the book, page 290
 - o The "STM USB virtual COM port drivers" do not need to be installed on Windows 10.
 - o Also, when I tried to install them on Windows 10, I got this error:



 The STM documentation states, "Starting from Windows 10, the STSW-STM32102 driver is no more adequate and the usage of the native inbox driver is recommended." Apparently, this means that the driver isn't needed, and the COM port will work without the STM driver.

https://www.st.com/content/my_st_com/en/products/development-tools/software-development-tools/stm32-software-development-tools/stm32-utilities/stsw-stm32102.license=1638205298464.product=STSW-STM32102.version=1.5.0.html#documentation

Additional info:

 $\frac{https://community.st.com/s/question/0D53W00000BtJkJ/stm32f078-usb-connection-to-windows-10-reports-there-are-no-compatible-drivers-the-stm-website-says-starting-from-windows-10-the-stswstm32102-driver-is-no-more-adequate-and-the-usage-of-the-native-inbox-driver-is-recommended$

- Tip, page 290,
 - When I clicked on the Tera Term installer, it took quite a while before getting the first installation
 GUI. Initially, I mistakenly thought the installer didn't run when I clicked on it.
- Additional info, page 291
 - **USB CDC** is the *USB communications device class*.
 - o https://en.wikipedia.org/wiki/USB communications device class
 - "The device attaches to an RS-232 communications line and the operating system on the USB side makes the USB device appear as a traditional RS-232 port."

2 Section: Introducing the STM USB driver stack (pg 292)

- Additional info, page 292
 - Info about STM32CubeMX:
 - https://www.freertos.org/FreeRTOS-Plus/BSP Solutions/ST/STM32CubeMX.html
- Additional info, pages 294f
 - o Programs for Chapter 11
 - mainRawCDC.c

Chapter 11\Src\mainRawCDC.c

mainUsbStreamBuffer.c

Chapter_11\Src\mainUsbStreamBuffer.c

Drivers\HandsOnRTOS\VirtualCommDriver.c

Drivers\HandsOnRTOS\VirtualCommDriver.h

Middleware\ST\STM32_USB_Device_Library\Class\CDC\Src\usbd_cdc.c

mainUsbStreamBufferMultiTask.c

Chapter 11\Src\mainUsbStreamBufferMultiTask.c

Drivers\HandsOnRTOS\VirtualCommDriverMultiTask.c

Drivers\HandsOnRTOS\VirtualCommDriverMultiTask.h

 ${\tt Middleware\ST\STM32_USB_Device_Library\Class\CDC\Src\usbd_cdc.c}$

- Additional info, page 294
 - In the IDE, some files are greyed and have a strike through them. This indicates they are not included in the current build configuration.
 - The carean that helaw charge an axample. The native build configuration is marrons and