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- o Possible solutions, for concurrent operations on the flag variable:
  - A mutex could be used, when accessing flag.
  - ARM does have atomic instructions, which might work here.
    - <a href="http://www.doulos.com/knowhow/arm-embedded/implementing-semaphores-on-arm-processors/">http://www.doulos.com/knowhow/arm-embedded/implementing-semaphores-on-arm-processors/</a>
    - https://stackoverflow.com/questions/11894059/atomic-operations-in-arm

```
flag = 1; //set 'flag' to 1 to "signal" BlueTaskB to run

0800454A LDR R7, =flag ; [PC, #48] [0x0800457C] =0x20005310

0800455C MOVS R3, #1

0800455E STR R3, [R7, #0]
```

- **Bug** in the code (mainPolledExample.c), page 183
  - o Problem (minor bug):
    - There's a compiler warning for mainPolledExample.c, for line 124, which is:
      - while(!flag);
    - Warning message:

- Clarification, page 185
  - o The program described here is mainSemTimeBound.c
- Clarification (mainSemTimeBound.c), page 185
  - o StmRand(3,7);
    - Returns a random number between 3 and 7, inclusive.
  - o The only documentation I could find for StmRnd() is from STM32CubeIDE. It can be accessed by right-clicking on the function, and selecting "Open Definition."
- Additional info (mainSemTimeBound.c), page 185
  - o In GreenTaskA, numLoops is changed on every iteration of the loop. This makes it non-trivial to figure-out expected behavior:
    - How much time is there between calls to xSemaphoreGive()?
    - How often will xSemaphoreTake() time-out?
  - Results from using SystemView, and running the program for over 2 minutes:
    - xSemaphoreTake() timed-out 40% of the time (107 times), and succeeded 60% of the time (145 times).
- Clarification (mainSemTimeBound.c), page 185-186
  - The code shown on page 185 differs from the code on GitHub (mainSemTimeBound.c). The code on GitHub has calls to SEGGER\_SYSVIEW\_PrintfHost(), and those calls are not in the code on page 185.
  - The figure on page 186 was created from running the code on GitHub. It shows the messages from calling SEGGER SYSVIEW PrintfHost().
- **Bug** in the book, page 186
  - o There are two related errors in the figure:
  - The events shown in the Terminal window are not the same events shown in the Events-List and Timeline windows. The events in Terminal window have different timestamps than the events in the other two windows.
  - o In the Terminal window, the events labeled "2" and "3" do not correspond with the events labeled "2" and "3" in the Timeline window. For each window, the time between those events is very