- Tasks which are marked ready for execution are displayed with a light grey bar until their execution starts. This is shown in the figure below.

- Example Timeline window, shown below
    - The zoom-level was set to 200us
    - In the Terminal window, a line (event) was clicked.
    - In the Timeline window, the window is moved so that marker is at the clicked event's timestamp.
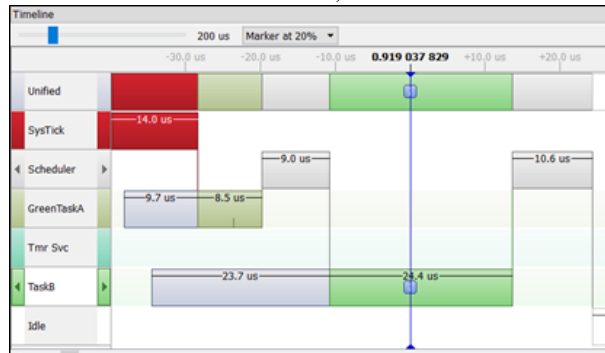
3 Upgrading SystemView code, on the board

This section describes how to update the SystemView code that runs on the board. It's a non-trivial process. It's probably not needed for running the book's code. However, the upgrade can be an instructive exercise.

SystemView provides code that runs on the board and communicates with the SystemView app on the host-computer. The code that runs on the board is provided in source-code format, and it is called the *SystemView Target Sources*. (For brevity, they will be referred to as the *Target Sources*.)

For the system distributed with the book, the Target Sources are already installed (version 2.52h). The FreeRTOS Kernel is also already installed (version 10.2.1), in source-code format. For the book's example-programs, the build-system is configured to compile FreeRTOS and the Target Sources.

The upgrade process described here is for upgrading from Target-Sources version 2.52h, to version 3.30 (the current version as of 10/2021). This process involves replacing the Target-Sources files. It does not require modifying the build-configuration. A Windows host is used.

Segger provides instructions for installing the Target Sources with FreeRTOS. In the book's system, the Target Sources are installed in a slightly different way. Segger's instructions were not used here, as it would probably require changing the build-system configurations. Also, Segger's instructions may not be current, e.g., it uses `traceSTART()`, which appears to be deprecated.
- https://wiki.segger.com/FreeRTOS_with_SystemView

In the upgrade process described here, the file-paths shown are for my host. Your file-paths may be different.

The Target-Sources can be downloaded here: https://www.segger.com/downloads/systemview/
On my host, the downloaded Target-Sources are in the folder: `D:\...\SystemView_Src_V330`

Also on my host, the system distributed with the book is at: `C:\projects\packtBookRTOS`.
It's prudent to back-up that folder before making this upgrade.

In the book's system, almost all of the Target-Source's files are at this directory:
`C:\projects\packtBookRTOS\Middleware\Third_Party\SEGGER`
How to upgrade those files is described in a section below.

`SEGGER_SYSVIEW_Conf.h` is a config file, distributed in the Target Sources. There is an instance of it in each chapter-folder, in the `Inc` sub-folder, e.g.,
`C:\projects\packtBookRTOS\Chapter_10\Inc\SEGGER_SYSVIEW_Conf.h`
How to upgrade those instances is described in a section below.

Upgrading the SystemView Target Sources just involves making the file upgrades described these next two sections.

3.1 Upgrading the files in Middleware\Third_Party\SEGGER

The old Target-Sources files were at:
`C:\projects\packtBookRTOS\Middleware\Third_Party\SEGGER`

The new Target-Source files were downloaded to:
`D:\...\SystemView_Src_V330`