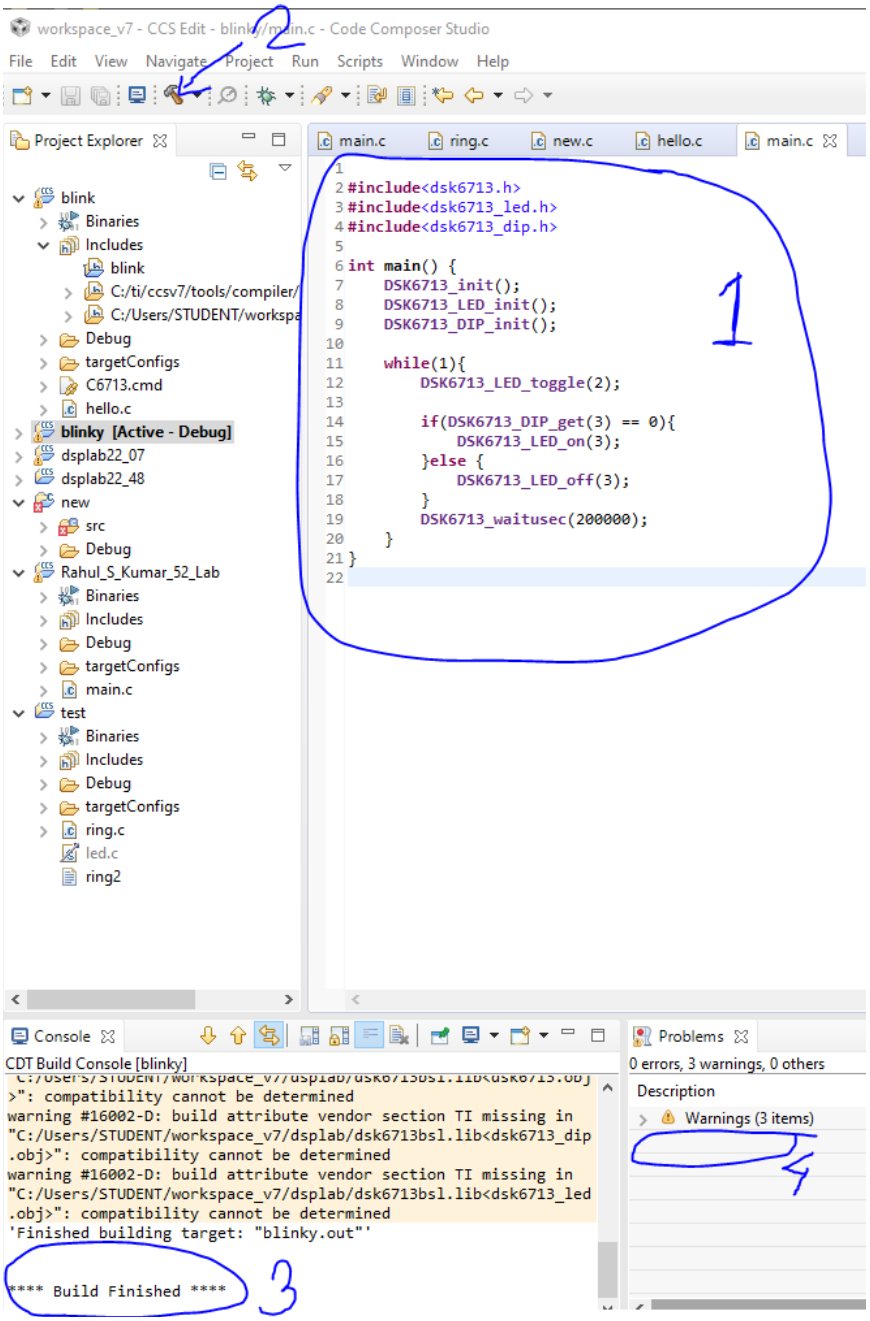
Build and Debug - Code Composer Studio

12 August 2024 12:33

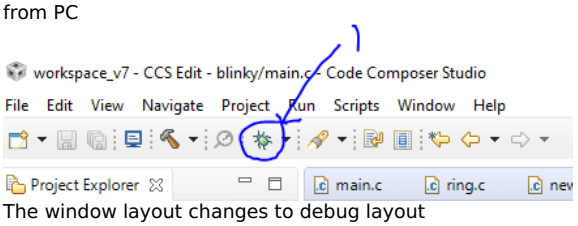
Build a sample application

Paste the code. Build and ensure 0 errors.



Debugging

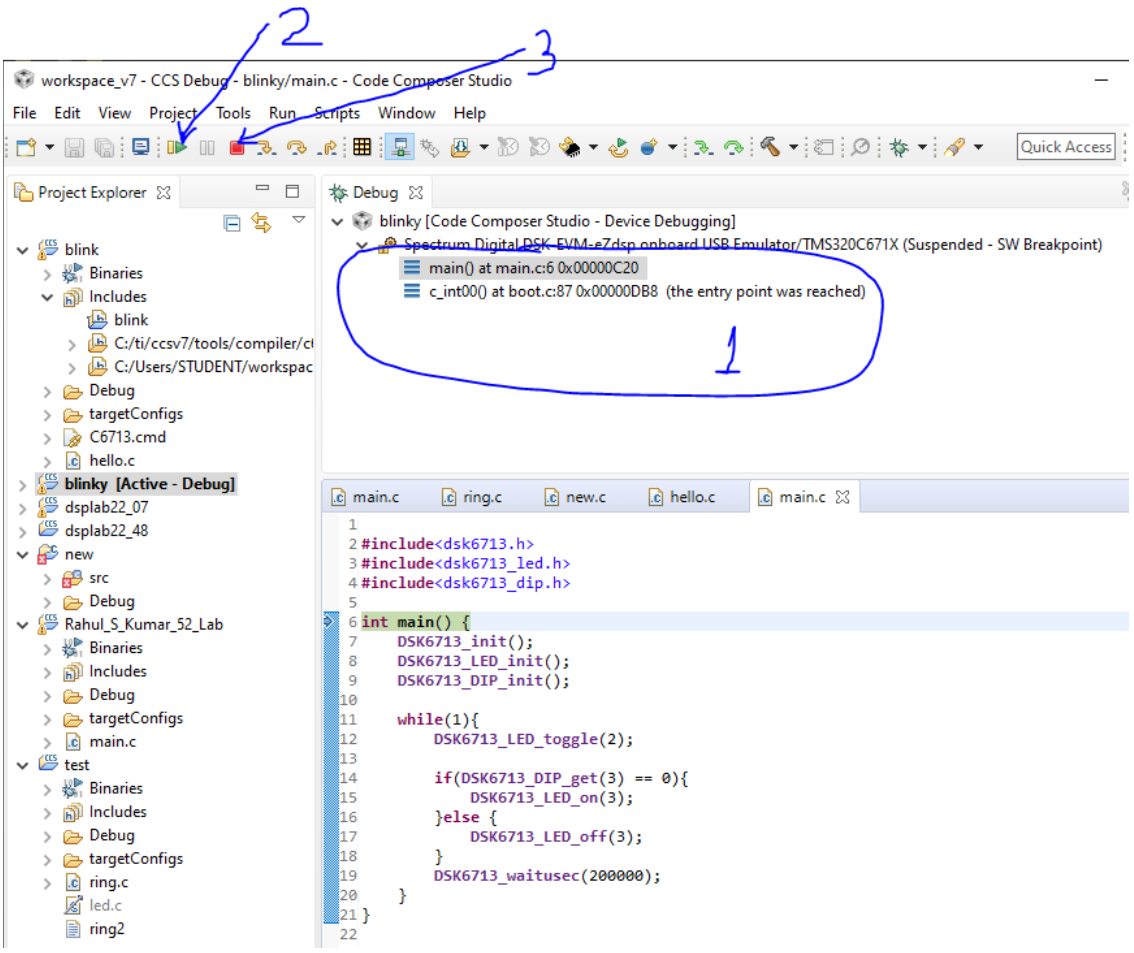
Press debug to load the binary to board using the onboard usb connector connection from PC



The window layout changes to debug layout

The debug layout

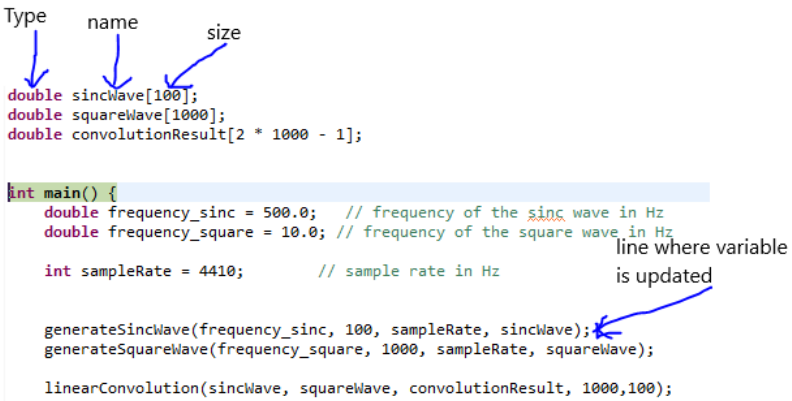
1. The current call stack is visible.
2. Press ***RUN/RESUME*** to start exection/debug
   Observe output from board.
3. Press ***STOP*** to stop execution/debug



Observing Waveforms stored in arrays

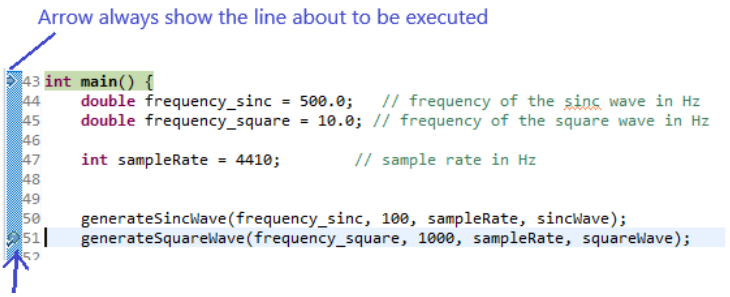
Step1

Before starting, note down the variable names to be observed, the type, the size of array, and the point in code where the array contents become valid.



Step2

- Enter debug mode.
- Set ***breakpoint*** after the line where the variable gets updated.
- And run till that line by pressing the ***RESUME*** button.

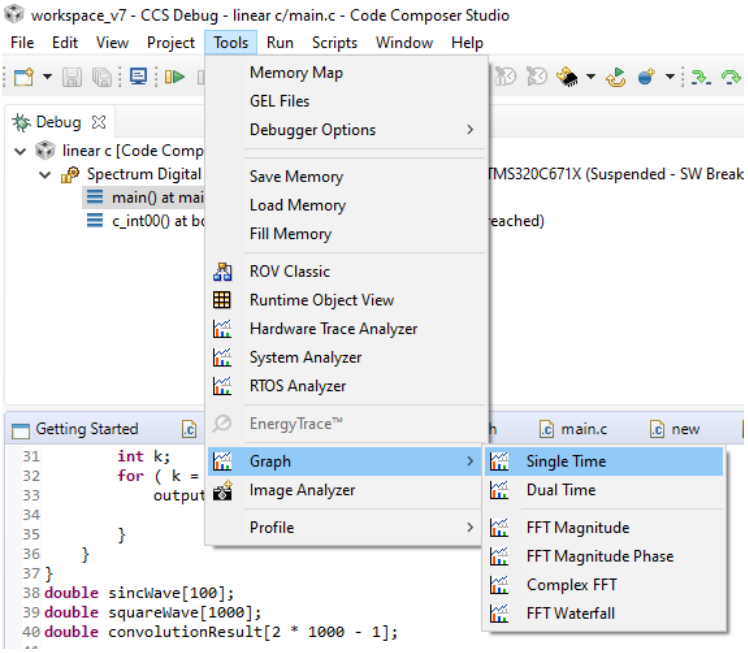


Breakpoint can be setup by double clicking the line number after the line where the variable gets updated. In this case, variable gets updated in line 50, so double click on 51 to set breakpoint.

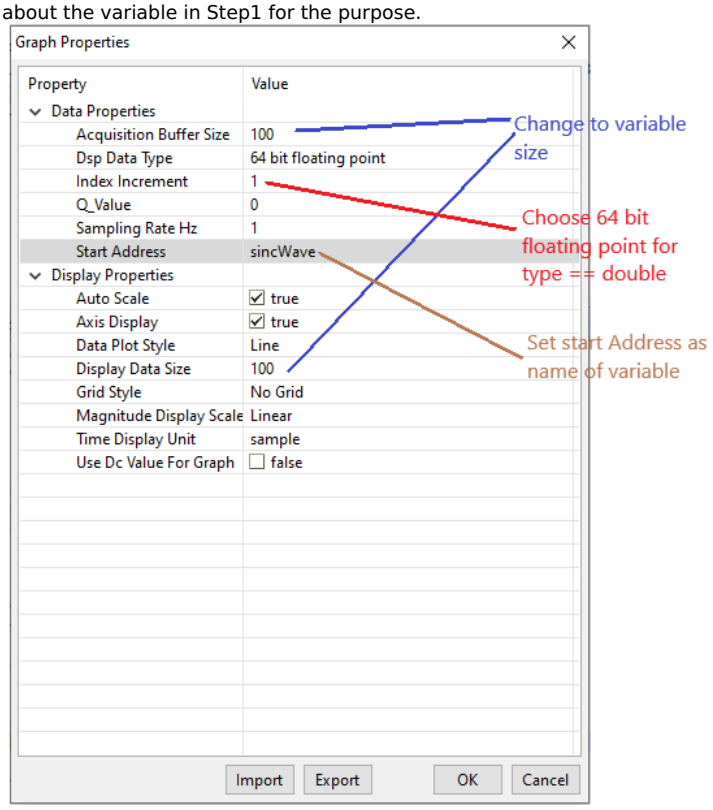
- The debugger should stop within a second or two at the line of breakpoint (The arrow will shift to line 51).
  - If the debugger doesn't stop within reasonable time (eg. 10s) then press break button and observe the call stack for clue about the problem.
  - Rectify the bug, build and repeat all the steps above.

Step3

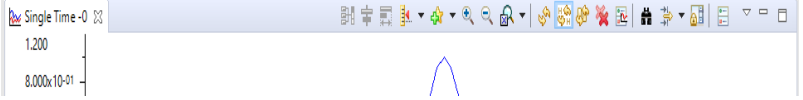
Once ***breakpoint*** is hit,
Select Tools > Graph > Single Time

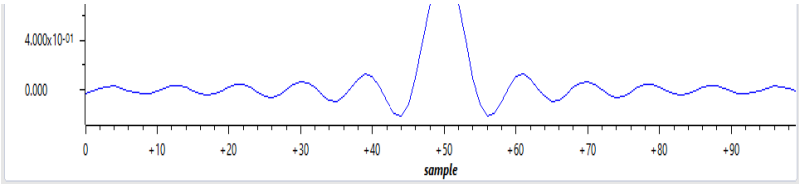


Configure the popup as shown below. We will use the values we already noted down about the variable in Step1 for the purpose.



Expected waveform will be shown in a popup window or tab




4.000x10-01
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sample