Use of FreeRTOS with Code Composer 5

Notes originally prepared by P.J. Bones 2014 using CCS5 running under Windows 7.

Steve Weddell checked these notes on 15 July 2016 for CCS 6.0 running under Windows 8.1.

This assumes that you have the StellarisWare files installed in the directory `C:\StellarisWare`

Run CCS5 (or CCS6)

Create a new project FRT in your workspace directory   (FRT = FreeRTOS Test)

Extract the files from `FreeRTOS_setup_CCS5.zip` into the project file

Project | Properties
 ==> CCS Build | ARM Compiler | Include options
  Add the following include paths:
    C:\StellarisWare
    C:\StellarisWare\utils
    C:\StellarisWare\boards\ek-lm3s1968

 ==> ARM Linker | File Search Path
  Add to the Linker options (libraries) the file:
    C:\StellarisWare_J_drive\StellarisWare\driverlib\ccs-cm3\Debug\driverlib-cm3.lib

 ==> ARM Linker | Basic Options:
  Set stack and heap appropriately, say to 0x800

Build and load the program

The simple demonstration program creates two tasks (both of which use the same task function), schedules them and starts executing.

Note that the startup_ccs.c file has in the vector table the FreeRTOS handlers for interrupts SVC all, PendSV and SysTick.

Remember that your program cannot use SysTick – that is reserved fro FreeRTOS.