IAR Workbench Project Settings Guide

1.1 Organizing your projects

IAR Workbench allows you to manage your coding assignments in projects and workspaces. A good way to organize and maintain your coding assignments is as follows:

- Create a folder for your CPE 325 Class
- Create a subfolder for each of your CPE 325 Labs
- Create a new workspace for each of your CPE 325 Labs, and save it in the corresponding CPE 325 Lab folder
- In that workspace, create a new project for each programming assignment. You can easily switch back and forth between them in the workspace navigator on the left.

So everything would be organized as such:

325 CLASS FOLDER > LAB 1 FOLDER > LAB 1 WORKSPACE > PROJECT 1

1.2 Assembly versus C code

In IAR Workbench software, it's important to make sure the compiler is set up for the type of code you're creating. For instance, when starting a new assembly code project, go to PROJECT > CREATE NEW PROJECT, select the + sign next to ASM in the menu, and click on the asm link before saving your project.

Likewise, if you're starting a new C code project, make sure you create a C code project in the appropriate compiler dialogue box.

1.4 Compiler settings

The following list will help you set up your project quickly. After creating a project, you can find the options box by either going to PROJECT > OPTIONS, typing ALT + F7, or right clicking on the project in the workspace navigator on the left and selecting OPTIONS.

GENERAL OPTIONS:
      TARGET tab
            Set device to MSP430FG4618
      OUTPUT tab
            Output file set to EXECUTABLE
      LIBRARY CONFIGURATION tab
            LIBRARY set to: NONE (ASM) or NORMAL DLIC (C)
      LIBRARY OPTIONS tab
            PRINTF FORMATTER set to AUTO (grayed out if in ASM mode)
            SCANF FORMATTER set to AUTO (grayed out if in ASM mode)

C/C++ COMPILER:
      OPTIMIZATIONS tab
            LEVEL set to NONE
      OUTPUT tab
            GENERATE DEBUG INFORMATION checked
      LIST tab
            OUTPUT LIST FILE checked
                  ASSEMBLER MNEMONICS checked

ASSEMBLER:
      LIST tab
            OUTPUT LIST FILE checked

LINKER:
      OUTPUT tab
            DEBUG INFORMATION FOR CSPY checked
                  WITH RUNTIME CONTROL MODULES checked
                        WITH I/O EMULATION MODULES checked
      LIST tab
            GENERATE LINKER LISTING checked
                SEGMENT MAP checked
                    MODULE MAP checked

DEBUGGER:
      SETUP tab
            DRIVER set to Simulator (may not be applicable if using JFET device)
            RUN TO checked; "main" typed in dialogue box