

# Freescalē MQX™ Porting Guide

<b>PRODUCT:</b>	Freescalē MQX™ RTOS
<b>DESCRIPTION:</b>	Instructions how to port old MQX projects to Freescalē MQX™ RTOS version 3.7.0 and later
<b>DATE:</b>	October 14 <sup>th</sup> , 2011

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## 1 Introduction

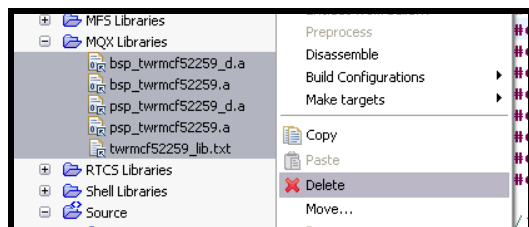
In MQX version 3.7, the library structure was modified in order to support the new Process Expert functionality with MQX. Instead of the **BSP and PSP libraries** residing in the “lib\<board>\mqx” folder, they **are separated out into “lib\<board>\bsp” and “lib\<board>\psp” folders.**

This means that any older MQX project that you will want to run on MQX 3.7 or later version will need to be modified to point to the new library locations.

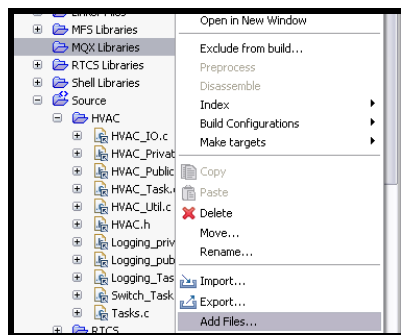
This document describes how to modify the project settings to compile your older projects. Please see the MQX Release Notes for any other changes that may affect your code as you migrate from one MQX version to another.

## 2 CodeWarrior 10 Projects

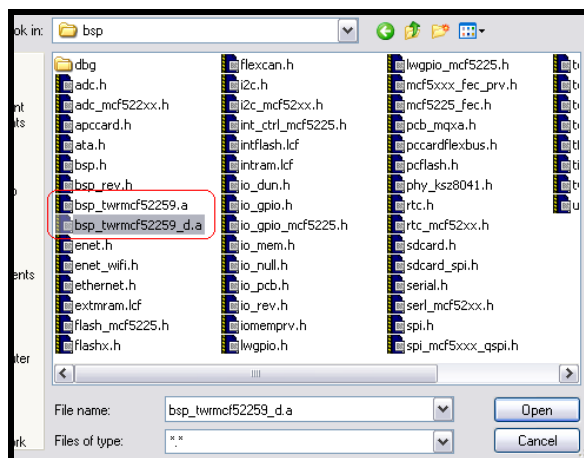
- 1) Remove the Board Support Package (BSP) and Processor Support Package (PSP) library files (ending in “.a”) from the MQX project, as well as any other files from the directory



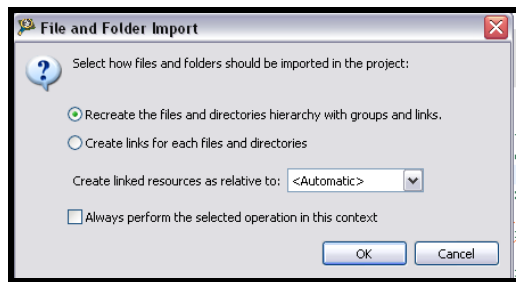
- 2) Right click on the MQX Libraries folder and go to Add Files...



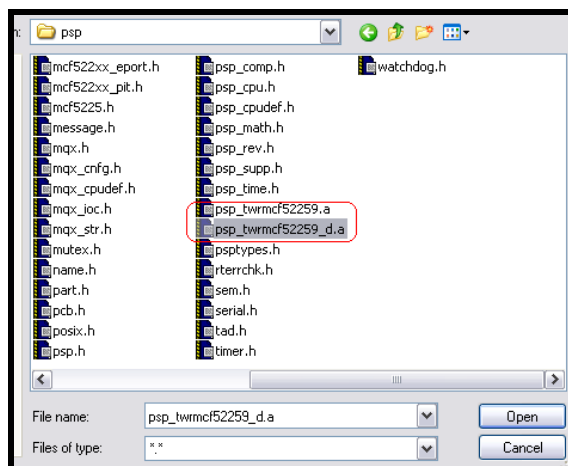
- 3) Then add the BSP library file for your board.
  - a. Browse to the directory located at `<mqx_dir>\lib\<board_name>\bsp\`  
For example, for the TWR-MCF5225X board, go to `<mqx_dir>\lib\twrmc52259.cw10\bsp`
  - b. Select the appropriate BSP library file. Library files end in “.a”. Make sure the filter is set to “All Files” to see those files.
  - c. The library file ending in “\_d.a” is the debug version of the library. Select the appropriate library version for your project.



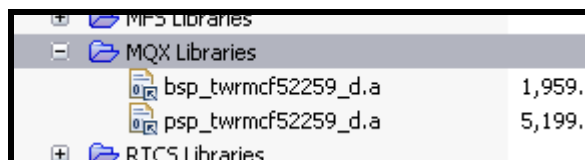
- 4) The following dialog box will come up. Hit "OK"




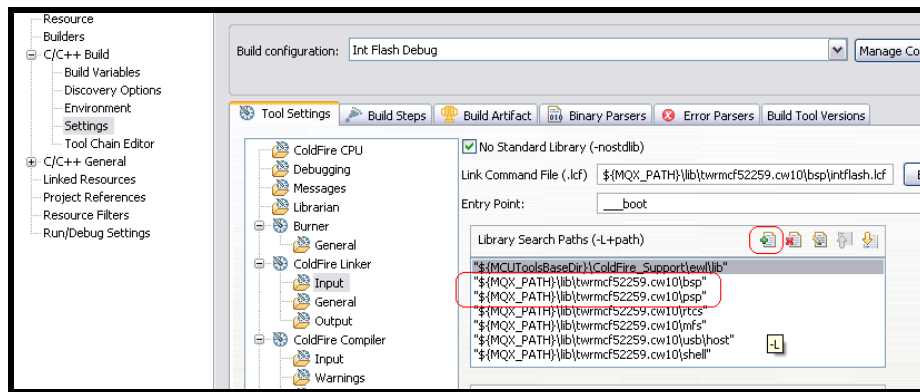
- 5) Follow the same steps as above to add the PSP library file. It is located at `<mqx_dir>\lib\<board_name>\psp\`



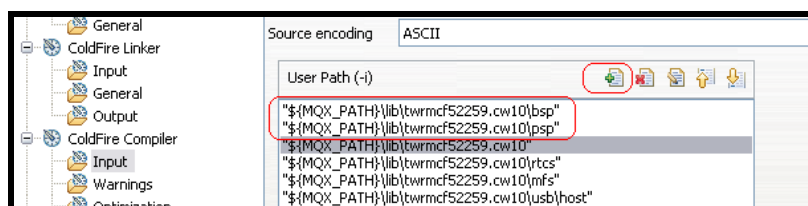
- 6) When the files are added, the project will look like this:



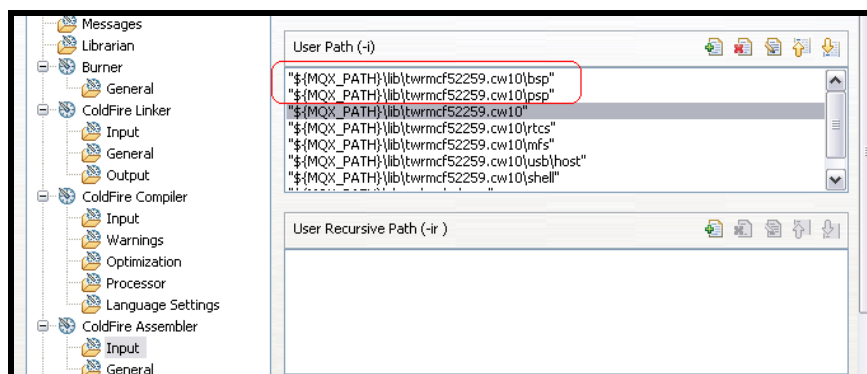
- 7) Finally we need to modify the library search paths for the project
- 8) Right click on the project name, and go to Properties->C/C++ Build->Settings->Tool Settings Tab->ColdFire Linker->Input
- 9) Delete the line `"${MQX_PATH}\lib\twrmcf52259.cw10\mqx"` by highlighting it and hitting the delete button 
- 10) Then add two lines by pressing the Add button (circled in red)  
`"${MQX_PATH}\lib\twrmcf52259.cw10\bsp"` and  
`"${MQX_PATH}\lib\twrmcf52259.cw10\psp"`



11) Go to the ColdFire Compiler->Input page and make the same edits



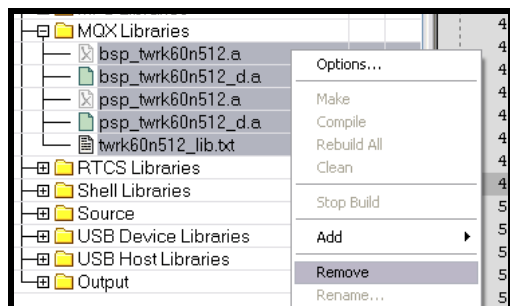
12) Go to the ColdFire Assembler->Input page and make the same edits



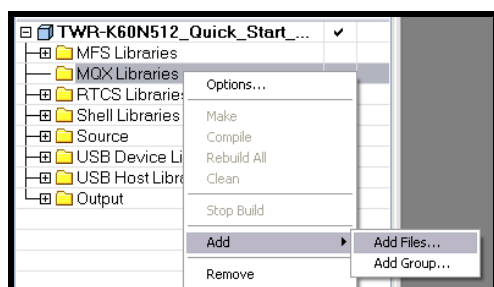
13) Hit OK to save changes, and you will now be able to compile your project.

### 3 IAR Embedded Workbench Projects

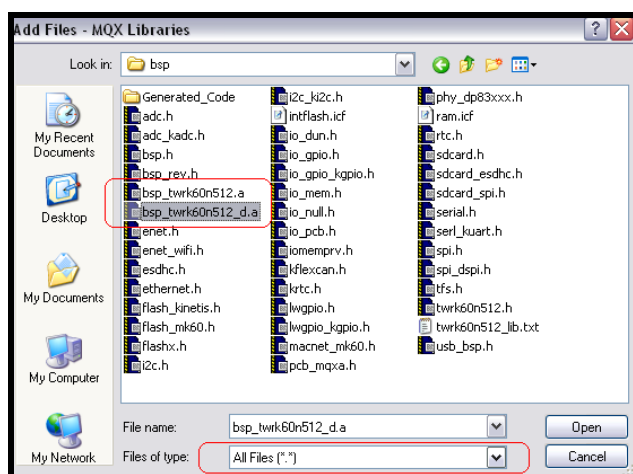
- 1) Remove the Board Support Package (BSP) and Processor Support Package (PSP) library files (ending in “.a”) from the MQX project, as well as any other files from the directory



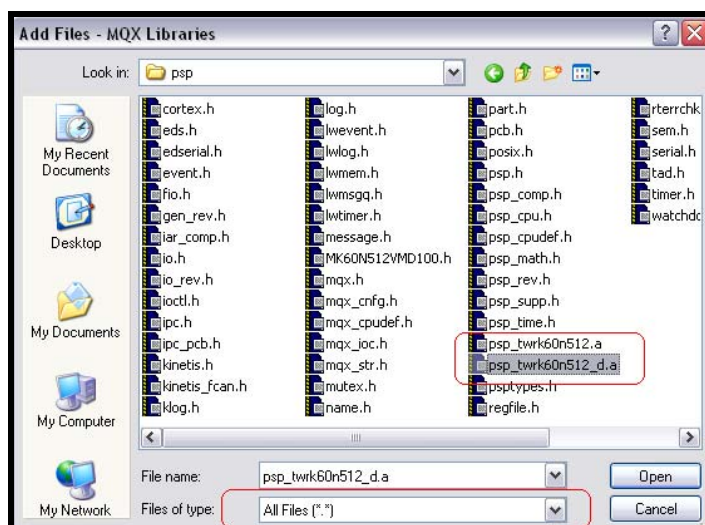
- 2) Right click on the MQX Libraries folder and go to Add->Add Files



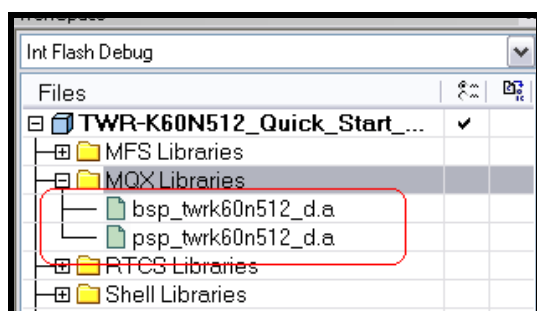
- 3) Then add the BSP library file for your board.
  - a. Browse to the directory located at `<mqx_dir>\lib<board_name>\bsp\`  
For example, for the TWR-K60N512 board, go to `<mqx_dir>\lib\twrk60n512.iar\bsp\`
  - b. Select the appropriate BSP library file. Library files end in “.a”. Make sure the filter is set to “All Files” to see those files.
  - c. The library file ending in “\_d.a” is the debug version of the library. Select the appropriate library version for your project.



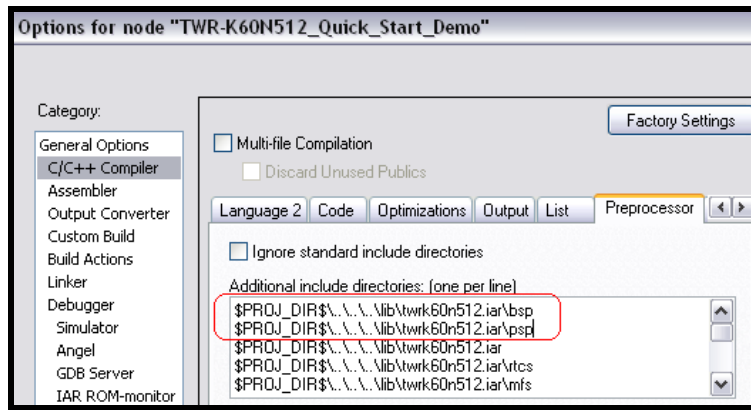
- 4) Follow the same steps as above to add the PSP library file. It is located at `<mqx_dir>\lib<board_name>\psp\`



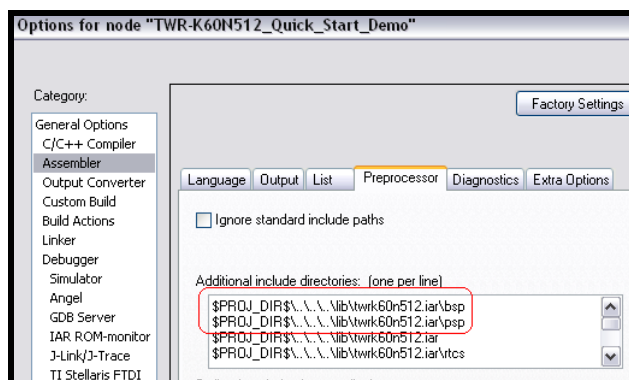
- 5) When the files are added, the project will look like this:



- 6) Finally we need to modify the library search paths for the project
- 7) Right click on the project name, and go to Options->C/C++ Compiler->Preprocessor
- 8) Change the line “`$PROJ_DIR$\\..\\..\\lib\\twrk60n512.iar\\mqx`” to  
`$PROJ_DIR$\\..\\..\\lib\\twrk60n512.iar\\bsp` and  
`$PROJ_DIR$\\..\\..\\lib\\twrk60n512.iar\\psp`



9) Go to the Assembler category and make the same edits



10) Hit OK to save changes, and you will now be able to compile your project.