

# Adapting HC908GZ16 Stationery for HC908GZ8

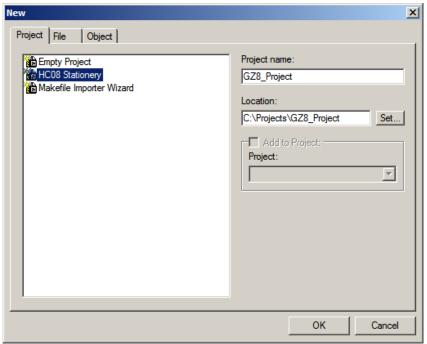
### **GRGZ Service Pack Software Addendum**

In the GRGZ Service Pack for CodeWarrior Development Studio for HC08 Microcontrollers, Special Edition Version 2.1.1, there are no GZ8 stationeries. To create a new project for the GZ8, follow the steps outlined below.

### Launch the CodeWarrior IDE

### Create a new project for GZ8 starting from GZ16 stationery

From main menu bar, select File > New – New window appears



**New Window** 



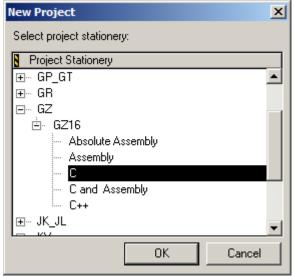
**TN210** 

- □ Select HC08 Stationery
- □ Enter a name for your project in Project Name text box
- Click the OK button New project Window appears



**New Project Dialog Window** 

- □ Click + to display the GZ Stationery
- □ Click + to display the GZ16 stationery
- □ If you want to create a project using Absolute Assembly, proceed to page 5
- □ Select Assembly, C, C and Assembly, or C++ listed below GZ16

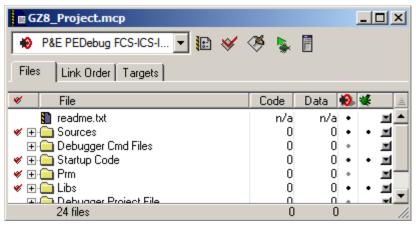


**GZ16** stationery

Click the OK button

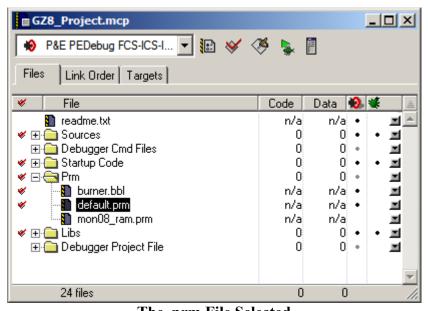


**TN210** 



Project (GZ8\_Project.mcp) Window

- □ You have successfully created a project for the GZ16
- You must now change the memory mapping in the parameter file to use the GZ8 flash area
- □ Click + to display the files in the Prm folder



The .prm File Selected

Double-click the .prm file for the target you're using (default.prm in this case)



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Edit the ROM memory section for 8k flash instead of 16k flash

```
    default.prm

                                                                                                           🤚 → 🚼 → ML. → 📴 → 🖆 → Path: C:\Projects\GZ8_Project\pmm\default.pmm
                                                                                                                \Diamond
                                                                                                                 NAMES END
                                                                                                                  ۸
    SECTIONS
                   = READ_WRITE 0x0040 TO 0x00FF;
= READ_WRITE 0x0100 TO 0x043F;
= READ_ONLY 0xC000 TO 0xFDFF;
         Z_RAM
RAM
         ROM
   PLACEMENT
         DEFAULT_ROM, ROM_VAR, STRINGS INTO DEFAULT_RAM INTO
                                                              ROM:
                                                              RAM;
Z_RAM;
          ZEROPAGE, MY_ZEROPAGE
   STACKSIZE 0x50
    VECTOR 0 _Startup
```

default.prm **Before Editing** 

□ Change 0xC000 to 0xE000, which is the lower address of the flash area in the GZ8

default.prm After Editing

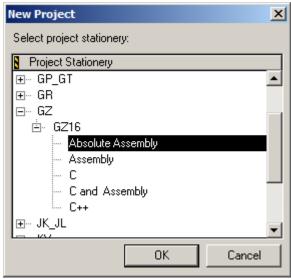
- Save this file
- You're now ready to develop code for the GZ8



**TN210** 

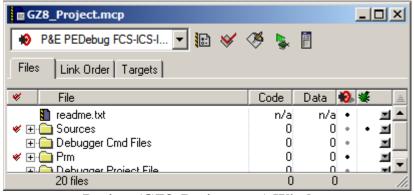
### Create a new absolute assembly project for GZ8 starting from GZ16 Stationery

- Follow the steps on pages 1 and 2
- Select Absolute Assembly listed below GZ16



**GZ16 Absolute Assembly stationery** 

Click the OK button



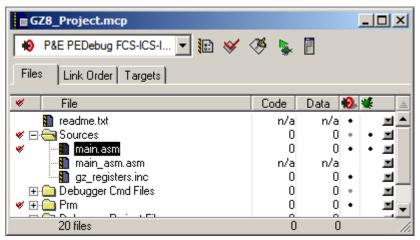
Project (GZ8 Project.mcp) Window

- You have successfully created an absolute assembly project for GZ16
- □ You must now change the assembly source file ROM definition to use the GZ8 flash area



**TN210** 

Click + to display the files in the Sources folder



The .asm File Selected

- □ Double-click the .asm file for the target you're using (main.asm in this case)
- Edit the definition of RomStart to reflect the lower address for the GZ8 flash

```
main.asm
                                                                             ♦ • () • M. • ☐ • Path: C:\Projects\GZ8_Project\sources\main.asm
                                                                                 \Diamond
                        XDEF main, Entry, AtoD_ISR, T_ISR
ABSENTRY Entry
Include 'gz_registers.inc'
                                                                                  ٠
  RamStart
                   EQU $C000
   RomStart
   ADC_Channel
                   EQU $05
   ADC_ENABLE_INT EQU $40
                                ; Bit mask for interrupt enable bit
                                ; in the ADC status/control register
   ; DEFAULT_RAM:
                   SECTION
                              SHORT
   ORG RamStart
temp_long ds 4
   temp_word ds 2
temp_byte ds 1
  Timeout1 ds 1
Timeout2 ds 1
                                 Allows three timeout routines to be called ea
                                ; can run for up to ~ 1/2 second.
  Timeout3
             ds 1
   ; DEFAULT_ROM:
                   SECTION
          ORG RomStart
   * Init_SCI - Turns on the asyncronous communications port
                for "transmitting only" at 9600 baud 8N1
         Col1 ◀
```

main.asm Before Editing



**TN210** 

□ Change "\$C000" to "\$E000", which is the lower address of the flash area in the GZ8

```
main.asm
                                                                                                      ♦ + {} + M. + ☐ + Dath: C:\Projects\GZ8_Project\sources\main.asm
                                XDEF main, Entry, AtoD_ISR, T_ISR
ABSENTRY Entry
Include 'gz_registers.inc'
                                                                                                             •
   RamStart
                         EQU $E000
   RomStart
   ADC_Channel EQU $05
ADC_ENABLE_INT EQU $40
                                          ; Bit mask for interrupt enable bit
                                          ; in the ADC status/control register
    ; DEFAULT_RAM:
                         SECTION
                                        SHORT
    ORG RamStart
temp_long ds 4
    temp_word ds 2
    temp_byte ds 1
   Timeout1 ds 1
Timeout2 ds 1
Timeout3 ds 1
                                          ; Allows three timeout routines to be called ea; can run for up to ^{\sim} 1/2 second.
    ; DEFAULT_ROM:
                          SECTION
             ORG RomStart
   * Init_SCI - Turns on the asyncronous communications port * for "transmitting only" at 9600 baud 8N1.
           Col 25 | ◀
```

main.asm After Editing

- □ Save this file
- You're now ready to develop absolute assembly code for the GZ8



**TN210** 

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