Freescale Semiconductor
56F8014 Demo Board Kit Installation Guide

Welcome!

Thank you for choosing this Freescale Development Tools product, featuring the CodeWarrior Integrated Development Environment (IDE). This document provides instructions on how to set up the Freescale 56F8014 Demonstration Board with the CodeWarrior IDE. If you have any questions regarding the hardware kit or software development tools, please contact the Technical Information Center:

www.freescale.com/support

Kit Contents

Your 56F8014 Demonstration Board kit includes:

Hardware
- 56F8014 Demonstration Board
- Parallel cable
- +9V DC power supply
- JTAG adapter

Software
- Metrowerks® CodeWarrior® with Processor Expert[TM] Development Tools CD-ROM
- Freescale 56800/E Accelerated Development System Resource CD-ROM

Documentation
- *56F8014 Demonstration Board Kit Installation Guide* (this document)
- Warranty Registration card

System Requirements

- 133 MHz Intel® Pentium® or compatible processor
- Windows® 98/NT/2000/XP
- 64 MB of RAM
- 350 MB hard drive space
- Parallel port
- CD-ROM drive for installation

Help

To obtain assistance with the 56F8014 Demonstration Board, please contact the Technical Information Center:
www.freescale.com/support

CodeWarrior Updates:
www.metrowerks.com/download

Processor Expert Updates:
www.processorexpert.com/ mc56800updates.html

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1   Install the CodeWarrior with Processor Expert Development Tools

1. Insert the CodeWarrior 7.0 CD into your computer's CD-ROM drive.
   If Auto Install is disabled on your computer, run the **setup.exe** program at root on the CD. Follow the CodeWarrior software installation instructions on your screen.

2. Insert the CodeWarrior 7.1 CD into your computer's CD-ROM drive.
   If Auto Install is disabled on your computer, run the **setup.exe** program at root on the CD. Follow the CodeWarrior software installation instructions on your screen.

3. Activate your CodeWarrior license key.
   To receive a FREE[1], Permanent 8K Words License:

   - Go to: **http://www.metrowerks.com/MW/Develop/ Embedded/56800/EHybrid**
   - Select the "Download 8K Special Edition Software" http link to register for the free license
   - Fill out your information online and a valid license key will be sent to your email address
   - Copy and paste the new key at the bottom of the *license.dat* file[2], located in the CodeWarrior directory

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1. Some Processor Expert Beans are priced separately
2. Do not move the *license.dat* file after installation. For additional assistance with license issues, email the Metrowerks Licensing Team: **license@metrowerks.com**

2 Running the PWM Demonstration Application

The 56F8014 Demonstration Board contains a pre-programmed demonstration application, which can be executed directly from Flash memory:

1. Plug the power supply into PWR on the demo board.

2. Plug the +9V DC power supply into AC outlet.

3. Observe blinking LEDs.

4. For source code or full documentation, follow these steps:
   a. Launch CodeWarrior IDE
   b. Select **File > New**
   c. Select **Processor Expert Examples Stationery**
   d. Type **Project name** and click **OK**
   e. Select **Demo Applications > 56F8014 Demo Board > PWM_example**

3 Connect the 56F8014 Demonstration Board to Your Computer

1. Connect the DB25 end of the parallel cable to the parallel port on your computer.

2. Connect the DB25 receptacle end of the parallel cable to the parallel port connector on the JTAG adapter.

3. Connect the 14-pin JTAG cable to J1 on the demonstration board (align the red key with pin 1, which is closer to the LED).

4. Plug the power supply into PWR on the Demonstration Board.

5. Plug the +9V DC power supply into an AC outlet.

TIP: To protect the equipment from power source surges, the +9V DC power supply should be plugged into a surge-protected power strip.

4 Tutorial: Creating a Code Warrior Project

1. Launch the CodeWarrior IDE.

2. Select **File > New**.

3. Select **Processor Expert Stationery** and give your project a name (a project with the *.mcp* extension will be created).

4. Click **OK** in the **New** window.

5. Select **MC56F801x > MC56F8014VFAE** from the **New Project** window and click **OK**.

   The project window opens and displays the file contents of your new CodeWarrior project.

6. Choose **Project > Make**.
   Processor Expert generates appropriate initialization and configuration files.

7. Expand the **User Modules** folder in the project window by clicking on the plus (+) sign.

8. Double click **projectname.c** to open it.

9. Add any additional code as indicated by comments:

   ```
   /*write your own code here*/
   ```

10. Save your change and close the editor window.

11. Choose **Project > Debug**.

    Your code downloads to the 56F8014 Demonstration Board and the program will stop at *main()* (which appears in the source pane of the debugger window).

12. Choose **Project > Run** (F5) and your program will continue execution until the next breakpoint is encountered.

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