Product	Product MCUXpresso SDK Config Tools		CodeWarrior	Processor Expert integrated into CodeWarrior	**Quick Start Tool external tool to CodeWarrior		
			CW11.1	CW11.1	CW11.1		
<u>56F82xxx</u>	COMING	COMING	\checkmark	\checkmark	\checkmark		
<u>56F84xxx</u>	Q1, 2022	Q1, 2022	\checkmark	√	\checkmark		

This guide will assist you when developing any part of the **56F82xxx/56F84xxx series**.

(**Not recommended for new developments)

Please choose between the following three options. Option #1 is the recommended option.

Option #1: Create a Processor Expert[®] based project within CW11.1

Processor Expert[®]software is available as part of the CodeWarrior[®] tool suite or as an Eclipse-based plug-in feature for installation into an independent Eclipse environment. Processor Expert[®] Software is a development system to create, configure, optimize, migrate, and deliver software components that generate source code for our silicon.

Use this option when developing any part of the **56F82xxx/56F84xxx series** to create a Processor Expert[®] based project within CW11.1.

Follow these steps to start the development:

- Install the <u>CodeWarrior® for MCUs (Eclipse IDE) for Microcontrollers V11.1 and any required</u> <u>patches</u>, Processor Expert as part of the CodeWarrior tool suite is available now. The following steps show how to install the patches.
 - a. Launch CodeWarrior 11.1, then go to **Help** -> **check for updates**.
 - b. Select the update sites.

Install			[]	\times
ailable Software				1	
ect a site or enter the location of a site.					
k with: type or select a site		~		<u>A</u> dd	
All Available Sites			e Sites"	prefe	rences.
filter te file:/D:/w/MCU/MCU_SP/com.freescale.mc	u11_1.DSC_MC56F81xxx.win.sp/buildRepo - metadata - jar:file:/C:/NX	P			
ne ESL MCU Eclipse Update Site - jar:file:/C·/N	XP SW/CW_MCU update/CW_MCU_11_1_Update3_200717.zipl/	-			
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Jannie.c. (IAAF SW (CW TOT MICO TT.) (COTIL	reescale.incurr_nusc.upuatesite.zip./				

c. Check the boxes for 'MCU v11.1 DSC Service Pack for DSC MC56F826xx', 'MCU v11.1 Updates' and 'MCU v11.1 Updates for DSC'. Uncheck the box next to 'Contact all update sites during install to find required software'. then click Next.

- d. Follow the prompts until it completes the installation and prompts for restart of tool, click **Yes** and the tool will restart and the installation of the updates is complete.
- 2. Follow the steps to create a Processor Expert based project (take 56F82748 for example)
 - a. Start the CodeWarrior IDE and open the new project wizard by clicking File -> New
 -> Bareboard project or clicking the tool bar New icon and select Bareboard
 project, then click Next.

C/C++ - CodeWarrior Develop	oment Studio	
ile Edit Source Refactor Sea	rch Project MQX	X Tools Processor Expert Run Window Help
New	Alt+Shift+N >	🕨 🏴 Linux/uClinux Application Project 💦 🔷 👻 🖓 💌 🖂
Open Path	Ctrl+Shift+A	Bareboard Project
Open File		C Embedded Component
Close	Ctrl+W	Makefile Project with Existing Cdde
Close All	Ctrl+Shift+W	Project
Save	Ctrl+S	Source Folder
Save As		Source File
Save All	Ctrl+Shift+S	🖹 Header File
Revert		File from Template
Move		© Class
Rename	F2	Ctrl+N Ctrl+N
Refresh	F5	
Convert Line Delimiters To	>	>
Print	Ctrl+P	
Switch Workspace	>	
Restart		
🖮 Import		
🗳 Export		
Properties	Alt+Enter	
Exit		
 Project Creation 	- Build/Debug	▲ Problems ■ Console ¤

b. Enter the desired project name in the Project name field, then click Next.

PNew Bareboard Project		×
Create an MCU Bareboard Project		
Choose the location for the new project		
Project name: MC56F82748_test_code		
Use default location	D	
Location: C:\LocalData\LocalData\codeprojects\wiC56F82748_test_code	Browse	
(?) < Back Next > Finish	Cancel	

- c. In the device page, expand the tree control and select 56800/E (DSC) -> MC56F827xx ->MC56F82748, then click Next.
- d. In the connection page, select the desired connections, then click Next.
- e. In the language page, select **C** language, then click **Next**.

f. Choose "Processor Expert" under rapid application development block, and change the project mode to "standalone". Click Finish, a new processor expert based project is created.

Arew Bareboard Project	_		×
Rapid Application Development			
Processor Expert			
Ranid Application Development			^
O None			
Processor Expert			
Start with perspective designed for			
 Hardware configuration (pin muxing and device initialization) Use current perspective 			
Initialize all peripherals			
Project Mode			
○ Linked ● Standalone			~
? < Back Next > Finish		Cancel	

g. The Processor Expert view is opened automatically and provides a GUI interface to easily configure pins, clocks, peripherals and middleware such as FreeMASTER. Start development by adding the desired components from **Components Library**.



Option #2: Create a Quick Start based project within CW11.1

Use this option when developing any part of the **56F82xxx/56F84xxx series** to create a Quick Start based project within CW11.1. The DSC56800EX_Quick_Start tool is a software environment for the embedded applications development. The Quick Start tool is provided for legacy users.

Follow these steps to start the development:

- 1. Install the <u>CodeWarrior® for MCUs (Eclipse IDE) for Microcontrollers V11.1</u> and any required patches
- 2. Install and configure <u>Quick Start</u>. Integrate Quick Start stationery wizard into CodeWarrior following the Quick Start installation guide.
- Open CodeWarrior, click on File->new->Project..., choose "New Stationery Project" and click Next.

🏴 New Project					×
Select a wiza	rd				\$
<u>W</u> izards:					
type filter text					
 Barebox Linux/u General C/C++ CodeW. CVS CVS Freescal New 	e Stationery Project	roject			
Show All Wiz	r ds. < <u>B</u> ack	Next >	<u>F</u> inish	Cancel	

4. Type project name, and choose **Standalone_C_application** under the desired part. Click **Finish**.

🥦 New Stationery Project	_	
Project Name: 56F82748_QS_Prj		
Use Default Location		
Location: C:\CW_WorkSpace		Browse
Select Template		
Product: DSC56800EX_Quick_Start_r2.7		~
MC56E82736		•
MC56F82738		
> MC56F82743		
> MC56F82746		
✓ MC56F82748		
✓ MC56F82748		
C_Application		
Standalone_C_application		
> MC50F83003		
> MC56F03683		
MC56E93680		
		·
		^
		~
	h	Cancel

5. A standalone template project is generated. Now the Quick Start tool can be invoked to configure the peripherals and generate initialization codes.

In order for DSC56800EX_Quick_Start to integrate itself with the development tools, the CodeWarrior tools should be installed prior to the installation of the DSC56800EX_Quick_Start tool.

Option #3: Create a new project within CW11.1

Use this option when developing any part of the **56F82xxx/56F84xxx series** without Processor Expert[®] or Quick Start.

Follow this step to start the development:

- 1. Install the CodeWarrior[®] for MCUs (Eclipse IDE) for Microcontrollers V11.1 and any required patches.
- 2. Create project with the new project wizard as described in option #1. The difference is that Processor Expert is not selected in step f.
- 3. Click Finish in below figure. A new project without Processor Expert or Quick Start support is generated.

Area Bareboard Project				×
Rapid Application Development				
Processor Expert				
Application Development One				
O Processor Expert				
Start with perspective designed for				
O Hardware configuration (pin muxing and device initialization)				
Use current perspective				
Initialize all peripherals				
Project Mode				
◯ Linked				
○ Standalone				
No device initialization code is generated. Only generates startup code. See read	dme.tx	ct in p	oroject	^
how Processor Expert can be enabled (if not done here).				
Use current perspective and show Processor Expert views.				\sim
C < Back Next > Finish			Cancel	