



Freescale Semiconductor, Inc.
Release Notes

Processor Expert Software for i.MX Processors

Version 1.1.0

1 Overview

Processor Expert Software for i.MX processors is a suite of configuration tools for i.MX family processors.

This file contains last-minute information about Processor Expert Software for i.MX Processors Version 1.1.0.

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2 Product Contents

2.1 Tools

This version of the product contains these configuration tools:

- **Pin Settings Tool** - This tool provides you with a possibility to easily configure signals to pins multiplexing and electrical properties of pins.

2.2 Supported Processors

- i.MX6D
- i.MX6DL
- i.MX6Q
- i.MX6S
- i.MX6SL
- i.MX6SX

2.3 Supported Development Boards

Processor	Boards
i.MX6D	i.MX6D_EVB_X3 i.MX6D_Sabre_AI_RevA i.MX6D_Sabre_AI_RevB i.MX6D_Sabre_Lite_RevA i.MX6D_Smart_Device_RevA i.MX6D_Smart_Device_RevB
i.MX6DL	i.MX6DL_EVB_X3 i.MX6DL_Sabre_AI_RevA i.MX6DL_Sabre_AI_RevB i.MX6DL_Sabre_Lite_RevA i.MX6DL_Smart_Device_RevA i.MX6DL_Smart_Device_RevB
i.MX6Q	i.MX6Q_EVB_X3

	i.MX6Q_Sabre_AI_RevA i.MX6Q_Sabre_AI_RevB i.MX6Q_Sabre_Lite_RevA i.MX6Q_Smart_Device_RevA i.MX6Q_Smart_Device_RevB
i.MX6S	i.MX6S_EVB_X3 i.MX6S_Sabre_AI_RevA i.MX6S_Sabre_AI_RevB i.MX6S_Sabre_Lite_RevA i.MX6S_Smart_Device_RevA i.MX6S_Smart_Device_RevB
i.MX6SL	i.MX6SL_BGA_EVB_BD i.MX6SL_BGA_EVK_BD
i.MX6SX	i.MX6SX_Smart_Device_RevC

2.4 Documentation Alignment

Information about registers, signals to pins multiplexing, electrical properties and packages the tool is based on correspond to the i.MX processors reference manuals and datasheets listed in the table below.

Processor	Reference Manual	Data Sheets
i.MX6D	MX6DQRM Rev. 2	IMX6DQAEC Rev. 3 IMX6DQCEC Rev. 3 IMX6DQIEC Rev. 3
i.MX6DL	IMX6SDLRM Rev. 1	IMX6SDLAEC Rev. 4 IMX6SDLCEC Rev. 4 IMX6SDLIEC Rev. 4
i.MX6Q	MX6DQRM Rev. 2	IMX6DQAEC Rev. 3 IMX6DQCEC Rev. 3 IMX6DQIEC Rev. 3
i.MX6S	IMX6SDLRM Rev. 1	IMX6SDLAEC Rev. 4 IMX6SDLCEC Rev. 4

		IMX6SDLIEC Rev. 4
i.MX6SL	IMX6SLRM Rev. 1	IMX6SLCEC Rev. 3
i.MX6SX	IMX6SXRm Rev. 0	IMX6SXAEC Rev. C IMX6SXCEC Rev. C IMX6SXIEC Rev. C

3 System Requirements

- Windows 32-bit or 64-bit or Linux 64-bit (Windows 7 and 8 are supported)
- 500MB of free disk space

4 Installation

This version of the product is available as a full product - Eclipse 4.3 for C/C++ developers based IDE with the Processor Expert for i.MX Processors installed in and as a plugin installer (eclipse software site) for Eclipse 3.7, 4.2 and 4.3. The plugin installer can also be used to update existing Processor Expert for i.MX installation.

4.1 Full product installation

1.
 - a. Windows: Run the PEx_for_i.MX_1.1.0.exe installer and follow the guided installation process.
 - b. Linux: Unpack the PEx_for_i.MX_v1.1.0_package_Linux_x64.tar.gz archive into a proper location

Note: It is not necessary to unpack the archive in the user's home location, but it helps prevent problems with updating the product. If you install the product into an admin location, you will need admin permissions (with sudo) to install any product update.
2. Once the product is successfully installed, you can start using the tool. Run <installation path>\eclipse\eclipse.exe on windows or <installation path>\eclipse\eclipse on Linux.

4.2 Plugin installation

1. Unzip the PEx_for_i.MX_1.1.0_Plugin_Installer_UnzipMe.zip package.
2. Run your Eclipse IDE.
3. If you already installed any version of the product then continue with point 10. Otherwise follow all the steps below.

Freescal e Updater Installation

4. Go to Help >> Install New Software... >> Add...
5. Fill the name of the new software site, for example: Freescal e Updater
6. Select the **freescal e_updater.zip** archive file
7. Select the **Eclipse Freescal e Solutions Category** group of items to be installed
8. Follow the guided installation process
9. Eclipse will ask you to restart the environment as the last step of the installation process. Please, do so.

Product Installation

10. Go to Help >> Install New Software... >> Add...
11. Fill the name of the new software site, for example: PEx for i.MX 1.1.0
12. Select the **PEx_for_i.MX_v1.1.0.zip** archive file
13. Select the **Processor Expert for i.MX Processors v1.1.0** group of items to be installed
14. Follow the guided installation process
15. Eclipse will ask you to restart the environment as the last step of the installation process. Please, do so.
16. You can start using the tool now

5 Known Problems and Limitations

5.1 Pin Settings Tool

- Performance problems:
 - The tool can become slowly responsive if there are multiple projects with the **PinSettings** component opened. It is recommended to have only one open project at a time.
 - [PEXIMX-49](#) - It can take a while (couple of seconds on a slower machines) to see a response in UI on some changes like checking a checkbox on the Routing Expanded view.
 - You can mitigate this problem by using JRE 1.8 either as your system JRE or just for the Eclipse IDE where you have installed the product.
- [PEXIMX-126](#) – It might pop error messages immediately after creating new project for some i.MX6 boards that are caused by default preset configuration of the routing representing “all options” for pins configuration specific for the particular i.MX6 board. Current tool doesn’t allow multiple routing options configured at the same time on the single pin which is reported as routing conflict(s). Tool doesn’t solve routing conflicts automatically. User should select individual routing options to remove these conflicts to be able to generate register initialization code for current configuration.
- [PEXIMX-171](#), [PEX-IMX-173](#) – The Eclipse built-in feature of undo – redo actions sometimes doesn’t affect correctly the changes done in the IOMUX configuration within the **PinSettings** component. The undo/redo action might be taken in single action after a few steps of the undo or redo instead of particular actions done by the user in UI.
- [PEXCORE-426](#) – It is not possible to select a same function of a pin which is automatically selected (default value) in the Pins view routing mode.

6 Revision history

Revision	Change description
PEX for i.MX 1.1.0	<ul style="list-style-type: none"> • PinSettings UI improvements • Tool performance increased • Added feature of export registers for exporting of the configuration register values to user specified text file • Updated documentation – new Processor Expert User Guide available as online Eclipse help chapter and extra PDF as well “PEX_for_iMX_User_Manual.pdf”
PEX for i.MX 1.0.1	<ul style="list-style-type: none"> • Support of i.MX6SX • Support of Freescale i.MX6 development boards – Added board configuration project templates with preconfigured pin settings (signals to pins multiplexing, electrical properties) • JRE 1.8 is used in the full product – Performance increase
PEX for i.MX 1.0	Initial release

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