

Kinetis SDK v.1.2.0 Release Notes for the FRDM-KV10Z Freescale Freedom Development Platform

1 Overview

These are the release notes for the Freescale Kinetis Software Development Kit (SDK) 1.2.0. They support for the FRDM-KV10Z Freescale Freedom development platform. This release adds support for the board, including the set of demos and examples in the existing Kinetis SDK v1.2.0. For more information regarding Kinetis SDK v1.2.0 content, including structure and limitations, see *Kinetis SDK v.1.2.0 Release Notes* (document KSDK120RN).

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For the latest version of document and other Kinetis SDK documents, see the Kinetis SDK homepage at www.freescale.com/ksdk.

2 What Is New

These are the new features for Kinetis SDK 1.2.0:

- Added board support for the FRDM-KV10Z Freescale Freedom development platform

3 Development Tools

The Kinetis SDK 1.2.0 was compiled and tested with these development tools:

- Kinetis Design Studio IDE v3.0
- IAR Embedded Workbench for ARM[®] version 7.40.2
- MDK-ARM Microcontroller Development Kit (Keil)[®] 5.14
- Makefiles support with GCC revision 4.8-2014-q3-update from ARM Embedded
- Atollic[®] TrueSTUDIO[®] 5.3.0

4 Supported Development Systems

This release supports boards and devices listed in this table. Boards and devices in boldface were tested in this release:

Table 2. Supported MCU devices and development boards

Development boards	Kinetis MCU devices
FRDM-KV10Z	MKV10Z32VLF7 , MKV10Z32VLC7, MKV10Z32VFM7, MKV10Z16VLF7, MKV10Z16VLC7, MKV10Z16VFM7

5 Release Contents

This table describes the release contents.

Table 3. Release Contents

Deliverable	Location
Demo applications	<install_dir>/examples/frdmkv10z/demo_apps/...
Driver examples	<install_dir>/examples/frdmkv10z/driver_examples/...
Documentation	<install_dir>/doc/...
A Processor Expert service pack	<install_dir>/tools

6 Kinetis SDK Release Overview

The Kinetis SDK is intended for use with the Freescale Kinetis MCU product family based on the ARM[®] Cortex[®]-M series architectures. The release consists of:

- Demo applications/Driver examples
- RTOS support components
- Documentation (Kinetis SDK API Reference Manual and various user's guides)

6.1 Demo applications

The demo applications demonstrate the usage of the driver libraries and other integrated software solutions on supported development systems. For details, see the *Kinetis SDK v. 1.2 Demo Applications User's Guide* (document KSDK12KV10DEMOUG).

6.2 Driver examples

The driver examples demonstrate configuring drivers by passing configuration data to the API functions. For details, see the *Kinetis SDK v.1.2 Demo Applications User's Guide* (document KSDK12KV10DEMOUG).

7 Known Issues

For additional limitations, see the SDK 1.2 Release Notes (document KSDK120RN).

7.1 Maximum file path length in Windows[®] 7 operating system

Windows[®] 7 operating system imposes a 260 character maximum length for file paths. When installing the Kinetis SDK, place it in a directory close to the root to prevent file paths from exceeding the maximum character length specified by the Windows operating system. The recommended location is the C:\Freescale folder.

7.2 Installer issue

Note that the Linux[®] operating system installer was tested only on a host with Ubuntu 14.04.

7.3 J-Link and P&E Micro external debug probe usage

When connecting J-Link or P&E Multilink external probe, it might be necessary to cut trace under J8 and J12 jumpers in order to isolate OpenSDA circuit.

7.4 J-Link GDB server issue

Some SEGGER J-Link GDB server versions fail to program the MKV10 derivative (FRDM-KV10 Freescale Freedom Development platform). To prevent this issue, ensure the latest SEGGER J-Link BDG server is installed from the appropriate link. See www.segger.com/jlink-software.html for this information. When using Atollic TrueSTUDIO, the path to the newly installed GDB J-Link server must be manually updated in the main menu by going to Window->Preferences->Run/Debug->Embedded C/C++ Application->Debug Hardware->SEGGER J-Link.

7.5 P&E Micro debugger issue

The P&E Micro GDB server, installed with Atollic TrueSTUDIO, may fail to program the MKV10 derivative (FRDM-KV10 Freescale Freedom development platform). To prevent this issue, ensure that the latest version of the P&E Micro GDB server is installed from www.pemicro.com/arm/3rd-party/index.cfm. Additionally, verify the path to the newly installed P&E Micro GDB server is correct in the main menu by going to Window->Preferences->Run/Debug->Embedded C/C++ Application->Debug Hardware->P&E Micro.

7.6 bubble_level_ftm demo compiler issue in Atollic

When using Atollic 5.3 TrueSTUDIO IDE to compile debug configuration of bubble_level_ftm demo, the code may not fit to available flash memory (linker error message). Release configuration of the demo and library can be compiled without a problem. As a workaround, the compiler optimization level in both the library and demo must be set to at least the first level (-O1). The option can be found in the project pop-up menu Properties->C/C++ Build->Settings->Tool Settings tab->C Compiler->Optimization->Optimization Level.

8 Revision History

This table summarizes revisions to this document.

Revision History		
Revision number	Date	Substantive changes
0	07/2015	Initial release

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