

Kinetis Design Studio V1.1.1 Release Notes

1 Overview

The Kinetis Design Studio IDE is a complimentary integrated development environment for Kinetis MCUs that enables robust editing, compiling and debugging of your designs. Based on free, open-source software including Eclipse, GNU Compiler Collection (GCC), GNU Debugger (GDB), and others, the Kinetis Design Studio IDE offers designers a simple development tool with no code-size limitations. Furthermore, Processor Expert software enables your design with its knowledge base and helps create powerful applications with a few mouse clicks.

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2 Release Contents

- Eclipse Kepler 4.3
- Host operating systems:
 - Windows® 7/8 (32bit binaries running on 32 and 64-bit OS)
 - Linux® (Ubuntu) (32bit binaries, need additional 32bit binaries to run on 64bit OS)
 - NOTE: .rpm installation for 32bit Redhat/Centos is not supported, see Known Issues section.
- GDB debugger with support for the following debug interface hardware:
 - SEGGER J-Link (w/SEGGER GDB Server)
 - P&E Multilink (w/P&E GDB Server)
 - CMSIS-DAP (w/OpenOCD GDB and OpenSDA embedded circuit)
 - Command Line (CL) debugging with GDB and OpenOCD TCL
- Support for additional downloadable Eclipse plug-ins including RTOS-awareness (including MQX™ and FreeRTOS)
- Project wizard to create bare metal, Kinetis SDK and Processor Expert software projects
- Processor Expert software with support for Kinetis SDK
- Languages supported: Assembly, C and C++ (all with no code size restrictions)
- Libraries included: newlib 1.19 and newlib-nano 1.0
- Industry standard Eclipse Framework with CDT for C/C++
- Kinetis SDK peripheral drivers and CMSIS compliant startup code
- GNU ARM® Eclipse plugins for managed make projects
- Make file projects
- ARM GNU gcc build tools (4.8)
- Support for MQX project creation and MQX kernel awareness (available as MQX download)
- Open for any Eclipse plugins either from the Eclipse ecosystem or from partners

3 What's New in this Release

Attention users of the KDS v1.0.1 beta: Importing Kinetis SDK projects from the beta version is *NOT* supported. It is not necessary to uninstall the previous version. Instead, install into a new installation folder and use a new a new workspace for the projects.

- **Support for the K22F** (e.g. FRDM-K22F): For debugging K22F devices, the usage of either P&E or Segger debugging devices is recommended, as the OpenOCD support for K22F is not ready yet at the time of the release. OpenOCD support for K22F will be added at a later time.
- **SDK V1.0.0-GA Support:** This release supports the GA (General Availability) release of the Kinetis SDK. Because of the many changes in the Kinetis SDK and the changes needed by this for the Kinetis Design Studio V1.1, do **not** use existing Kinetis SDK beta projects with this release. Instead, use this release only with the V1.0.0-GA (General Availability) release of the SDK. See next section about how to use the Kinetis Design Studio with the Kinetis SDK.

- **Processor Expert V10.4.1:** This release comes with an updated Processor Expert V10.4.1 release which includes support for the Kinetis SDK V1.0.0-GA. The Processor Expert components for the SDK are part of the SDK and need to be installed from the SDK installation folder, see next section.
- **New Project Wizard:** The wizard to create new projects has been extended to make creation of bare metal, Kinetis SDK and Processor Expert projects easier. Now it is possible to select the path to the Kinetis SDK installation folder.
- **Bug Fixes:** This release contains numerous bug fixes, enhancements and performance improvements identified during the beta test period.

Changes from the V1.1.0 to V1.1.1:

General Changes

- This release includes Centos/RHE 32bit Linux installer (was not included in V1.1.0)
- Zen-112/SCM-502: Updated SCR (Software Content Register) content listing in README.txt.

Bug Fixes

- Zen-111: the kds_user_guide.pdf has been updated to fix a wrong paragraph reference (Section 3.2, Paragraph 4)
- ENGR00325552: Fixed the P&E update site and installation process. It is now possible to update the P&E plugins within KDS.
- ENGR00325553: Fixed a problem in the IP feature setup for the Ethernet P&E Cyclone MAX and Tracelink interfaces.

Changes from the V1.0.1-beta to V1.1.0:

General Changes

- The executable in the eclipse/ directory, used to launch the IDE, has been renamed to kinetis-design-studio. While an eclipse executable still exist it should not be launched by users.
- The kinetis-design-studio IDE launcher found in the bin/ directory has been removed. On Windows systems it has been replaced by a shortcut, on Linux systems users should use eclipse/kinetis-design-studio instead.
- Additional information has been added to the software content register (SCR), found in README.txt.
- The license under which KDS is distributed, license.htm, has been updated.
- The Kinetis SDK (KSDK), is no longer bundled with KDS.
- The version of the GNU ARM Eclipse plugins and tools shipped with KDS has been updated.
- The version of the P&E Micro tools shipped with KDS has been updated.
- The version of the SEGGER tools shipped with KDS has been updated.
- The version of Processor Expert shipped with KDS has been updated.

Documentation Changes

- The CodeWarrior migration appendix of the user guide has been moved into a separate document (porting guide).

- Ubuntu 14.04 (64-bit) has been explicitly mentioned as an unsupported host.
- References to installing from tar archives has been removed, as these archives are not distributed by Freescale.
- The Eclipse help center no longer includes manuals for GNU tools & libraries not shipped with KDS.
- Instructions for installing the Kinetis SDK (KSDK), have been added to the user guide.

Installer Changes

- On Windows systems, a Desktop shortcut is now installed by default.
- Redundant or confusing screens have been removed from the Windows installer.
- Users are no longer required to reboot after installing KDS, on Windows systems.
- On Windows systems the installer and the contents of the bin/ and toolchain/bin/ directories are signed now.
- The .deb package now includes additional meta-information; the Ubuntu Software Center no longer reports that "the package is of bad quality".
- The linux packages now install udev files to /lib instead of /etc.

Eclipse and IDE Changes

- The CodeWarrior project migration assistant has been improved to handle a wider range of CodeWarrior projects, including many of the examples shipped with MQX.
- The OpenOCD manual is now accessible from the Eclipse help center.
- The default number format for Variables, Expressions and Registers is now hex.
- A bug causing a "contains invalid values" error to occur when accessing the appearance preference page has been fixed.
- On Windows systems, a bug preventing debug sessions starting, with a "gdb --version" error messages when the system PATH contains double or trailing semicolons has been fixed.
- The flash from file functionality now supports P&E debug configurations.
- The flash from file functionality now works in an empty workspace.
- The version of the Java runtime environment shipped with KDS has been updated.
- The organization of Eclipse features and plugins has been changed, as shown by the Installation Details dialog. This should have no impact on functionality.
- A bug causing the "Launch Debug Configuration Selection" to be displayed when pressing the Debug toolbar button, instead of the most recent debug configuration being launched, has been fixed. Note that a debug configuration must have been launched previously for this button to work as expected.
- A bug causing Scanner discovery errors "arm-none-eabi-gcc not found in PATH" to appear in the problems view has been fixed. Note that workspaces previously opened with older version of KDS might include saved errors, these should vanish after the project is build.
- The previously unpopulated default tool chain project configuration option has now been set to the tools shipped with KDS.
- A project creation bug causing builds of new projects using both Processor Expert and KSDK to fail with "invalid CPU defined" errors has been fixed.

- A project creation bug causing new KSDK projects not to initialize the C runtime library, and not to copy data from flash to RAM has been fixed.
- Projects created for MK64 devices, without Processor Expert or KSDK, now disable the COP watchdog by default.

OpenOCD Debugging Changes

- The --debug argument to OpenOCD no longer enables output related DAP polling of the target. This makes it easier to inspect the remaining debug output. To restore the DAP messages pass --debug=4.
- A restriction in OpenOCD that sometimes prevented setting breakpoints on arrays has been lifted.
- The mbed CMSIS-DAP application for FRDM-K64F boards, not distributed with KDS, has been significantly improved, by ARM, since its initial version, with further improvements expected in the future. It is recommended that users download the latest version from mbed.org/platforms and load it onto their device before using the KDS OpenOCD/CMSIS-DAP functionality. Note that v0203 requires that the board be power cycled **twice** before use.
- OpenOCD now emits an error if it detects a device it cannot control, most commonly because the device is secured. Previously this would have resulted in constant unsuccessful polling of the device.

GNU Tools changes

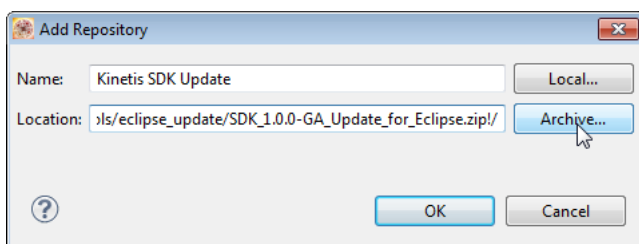
- Libtool support, *.la, files produced for GCC's target libraries are no longer distributed with KDS.

4 Using Kinetis Design Studio with the Kinetis SDK

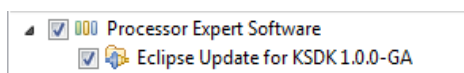
The Kinetis SDK comes with support for the Kinetis Design Studio which needs to be installed first. Without the Kinetis SDK Eclipse Update Files into the Kinetis Design Studio, the Kinetis SDK projects are not supported.

To install the necessary files:

1. Have the Kinetis SDK installed (e.g. in C:\Freescale\KSDK_1.0.0)
2. In Kinetis Design Studio, use the menu *Help > Install New Software*
3. Press the Add button
4. In the 'Add Repository' dialog, use the 'Archive' button to browse for the .zip file inside **tools\eclipse_update** of the SDK:



5. Press OK
6. Select all packages:



7. Press 'Next >' to install the software and to complete the installation.
8. A restart of Eclipse is needed at the end of the installation.

5 Updates

NOTE: Before running the Eclipse updater, make sure that you have the needed privileges (read/write permissions) for your Eclipse installation folder when running Eclipse.

After the release of the product, additional updates can be installed through the Kinetis Design Studio Update Site (<http://freescale.com/lgfiles/updates/Eclipse/KDS>):

1. In Kinetis Design Studio, use the menu *Help > Install New Software*
2. Select from the Freescale KDS Update Site (<http://freescale.com/lgfiles/updates/Eclipse/KDS>)
3. Choose and install the updates

To update the P&E debugging support, use the following Eclipse Update site:

<http://www.pemicro.com/eclipse/updates>

To update the Segger debugging support, download the latest Segger software from

<http://www.segger.com/jlink-software.html> and install it. It will detect the installation folder of KDS and updates the drivers.

To update the GNU ARM Eclipse (<http://gnuarmeclipse.livius.net/>) build tools, use the following Eclipse Update site:

<http://gnuarmeclipse.sourceforge.net/updates>

6 Devices Supported

Kinetis Design Studio supports a broad range of Freescale Kinetis devices, and more can be added with the Eclipse updater mechanism and serviced packs.

The following devices are supported with the Kinetis SDK (requires Kinetis SDK installed and Kinetis SDK Eclipse Update Files installed in KDS):

Devices supported with **Kinetis SDK** (V1.0.0):

Kinetis K Series

K2x Family

K22F (100 MHz) Family

MK22FN128

K22F (120 MHz) Family

MK22FN256

MK22FN512

MK22FN1M0

MK22FX512

K24F (120 MHz) Family

MK24FN1M0

K6x Family

K63F (120 MHz) Family

MK63FN1M0

K64F (120 MHz) Family

MK64FN1M0

MK64FX512

Kinetis V Series

KV3x Family

KV30 (100 MHz) Family

MKV30F128

KV31 (100 MHz) Family

MKV31F128

KV31 (120 MHz) Family

MKV31F128

MKV31F256

Kinetis Board Projects (install Kinetis SDK update to get boards beyond K64F):

▲ Boards

▲ Kinetis

FRDM-K22F

FRDM-K64F

TWR-K22F120M

TWR-K64F120M

TWR-KV31F120M

Processors Supported:

Kinetis E:

- ▲ MKE0x / KEA
 - ▲ KE02Z / KEAZN (20MHz,40MHz)
 - MKE02Z16xxx2
 - MKE02Z16xxx4
 - MKE02Z32xxx2
 - MKE02Z32xxx4
 - MKE02Z64xxx2
 - MKE02Z64xxx4
 - SKEAZN16xxx2
 - SKEAZN32xxx2
 - SKEAZN64xxx2
 - ▲ KE04Z / KEAZN (48MHz)
 - MKE04Z128xxx4
 - MKE04Z64xxx4
 - MKE04Z8xxx4
 - SKEAZN8xxx4
 - ▲ KE06Z / KEAZ (48MHz)
 - MKE06Z128xxx4
 - MKE06Z64xxx4
 - SKEAZ128xxx4
 - SKEAZ64xxx4

Kinetis K:

- ▲ MK10
 - ▲ MK10D (50MHz)
 - MK10DN128xxx5
 - MK10DN32xxx5
 - MK10DN64xxx5
 - MK10DX128xxx5
 - MK10DX32xxx5
 - MK10DX64xxx5
 - ▲ MK10D (72MHz)
 - MK10DX128xxx7
 - MK10DX256xxx7
 - MK10DX64xxx7
 - ▲ MK10D (100MHz)
 - MK10DN512Zxxx10
 - MK10DN512xxx10
 - MK10DX128Zxxx10
 - MK10DX128xxx10
 - MK10DX256Zxxx10
 - MK10DX256xxx10
 - ▲ MK10F (120MHz, 150MHz)
 - MK10FN1M0xxx12
 - MK10FX512xxx12
 - ▲ MK11D (50MHz)
 - MK11DN512xxx5
 - MK11DX128xxx5
 - MK11DX256xxx5
 - ▲ MK12D (50MHz)
 - MK12DN512xxx5
 - MK12DX128xxx5
 - MK12DX256xxx5

- ▲ MK20
 - ▲ MK20D (50MHz)
 - MK20DN128xxx5
 - MK20DN32xxx5
 - MK20DN64xxx5
 - MK20DX128xxx5
 - MK20DX32xxx5
 - MK20DX64xxx5
 - ▲ MK20D (72MHz)
 - MK20DX128xxx7
 - MK20DX256xxx7
 - MK20DX64xxx7
 - ▲ MK20D (100MHz)
 - MK20DN512Zxxx10
 - MK20DN512xxx10
 - MK20DX128Zxxx10
 - MK20DX128xxx10
 - MK20DX256Zxxx10
 - MK20DX256xxx10
 - ▲ MK20F (120MHz, 150MHz)
 - MK20FN1M0xxx12
 - MK20FX512xxx12
 - ▲ MK21D (50MHz)
 - MK21DN512xxx5
 - MK21DX128xxx5
 - MK21DX256xxx5
 - ▲ MK21F (120MHz)
 - MK21FN1M0xxx12
 - MK21FX512xxx12
 - ▲ MK22D (50MHz)
 - MK22DN512xxx5
 - MK22DX128xxx5
 - MK22DX256xxx5
 - ▲ MK22F (100MHz)
 - MK22FN128xxx10
 - ▲ MK22F (120MHz)
 - MK22FN1M0xxx12
 - MK22FN256xxx12
 - MK22FN512xxx12
 - MK22FX512xxx12
 - ▲ MK24F (120MHz)
 - MK24FN1M0xxx12

- ▲ MK30
 - ▲ MK30D (72MHz)
 - MK30DX128xxx7
 - MK30DX256xxx7
 - MK30DX64xxx7
 - ▲ MK30D (100MHz)
 - MK30DN512Zxxx10
 - MK30DN512xxx10
 - MK30DX128Zxxx10
 - MK30DX128xxx10
 - MK30DX256Zxxx10
 - MK30DX256xxx10
- ▲ MK40
 - ▲ MK40D (72MHz)
 - MK40DX128xxx7
 - MK40DX256xxx7
 - MK40DX64xxx7
 - ▲ MK40D (100MHz)
 - MK40DN512Zxxx10
 - MK40DN512xxx10
 - MK40DX128Zxxx10
 - MK40DX128xxx10
 - MK40DX256Zxxx10
 - MK40DX256xxx10
- ▲ MK50
 - ▲ MK50D (72MHz)
 - MK50DX128xxx7
 - MK50DX256xxx7
 - MK51DX128xxx7
 - MK51DX256xxx7
 - ▲ MK50D (100MHz)
 - MK50DN512Zxxx10
 - MK50DN512xxx10
 - MK50DX256Zxxx10
 - MK50DX256xxx10
 - MK51DN256Zxxx10
 - MK51DN256xxx10
 - MK51DN512Zxxx10
 - MK51DN512xxx10
 - MK51DX256Zxxx10
 - MK51DX256xxx10
 - MK52DN512Zxxx10
 - MK52DN512xxx10
 - MK53DN512Zxxx10
 - MK53DN512xxx10
 - MK53DX256Zxxx10
 - MK53DX256xxx10

- ▲ MK60
 - ▲ MK60D (100MHz)
 - MK60DN256Zxxx10
 - MK60DN256xxx10
 - MK60DN512Zxxx10
 - MK60DN512xxx10
 - MK60DX256Zxxx10
 - MK60DX256xxx10
 - ▲ MK60F (120MHz, 150MHz)
 - MK60FN1M0xxx12
 - MK60FN1M0xxx15
 - MK60FX512xxx12
 - MK60FX512xxx15
 - ▲ MK61F (120MHz, 150MHz)
 - MK61FN1M0xxx12
 - MK61FN1M0xxx15
 - MK61FX512xxx12
 - MK61FX512xxx15
 - ▲ MK63F (120MHz)
 - MK63FN1M0xxx12
 - ▲ MK64F (120MHz)
 - MK64FN1M0xxx12
 - MK64FX512xxx12
- ▲ MK70
 - ▲ MK70F (120MHz, 150MHz)
 - MK70FN1M0xxx12
 - MK70FN1M0xxx15
 - MK70FX512xxx12
 - MK70FX512xxx15

Kinetis L:

- ▲ MKL0x
 - ▲ KL02Z (48 MHz)
 - MKL02Z16xxx4
 - MKL02Z32xxx4
 - MKL02Z8xxx4
 - ▲ KL04Z (48 MHz)
 - MKL04Z16xxx4
 - MKL04Z32xxx4
 - MKL04Z8xxx4
 - ▲ KL05Z (48 MHz)
 - MKL05Z16xxx4
 - MKL05Z32xxx4
 - MKL05Z8xxx4

- ▲ MKL1x
 - ▲ KL14Z (48 MHz)
 - MKL14Z32xxx4
 - MKL14Z64xxx4
 - ▲ KL15Z (48 MHz)
 - MKL15Z128xxx4
 - MKL15Z32xxx4
 - MKL15Z64xxx4
 - ▲ KL16Z (48 MHz)
 - MKL16Z128xxx4
 - MKL16Z256xxx4
 - MKL16Z32xxx4
 - MKL16Z64xxx4
- ▲ MKL2x
 - ▲ KL24Z (48 MHz)
 - MKL24Z32xxx4
 - MKL24Z64xxx4
 - ▲ KL25Z (48 MHz)
 - MKL25Z128xxx4
 - MKL25Z32xxx4
 - MKL25Z64xxx4
 - ▲ KL26Z (48 MHz)
 - MKL26Z128xxx4
 - MKL26Z256xxx4
 - MKL26Z32xxx4
 - MKL26Z64xxx4
- ▲ MKL3x
 - ▲ KL34Z (48 MHz)
 - MKL34Z64xxx4
 - ▲ KL36Z (48 MHz)
 - MKL36Z128xxx4
 - MKL36Z256xxx4
 - MKL36Z64xxx4
- ▲ MKL4x
 - ▲ KL46Z (48 MHz)
 - MKL46Z128xxx4
 - MKL46Z256xxx4

Kinetis V:

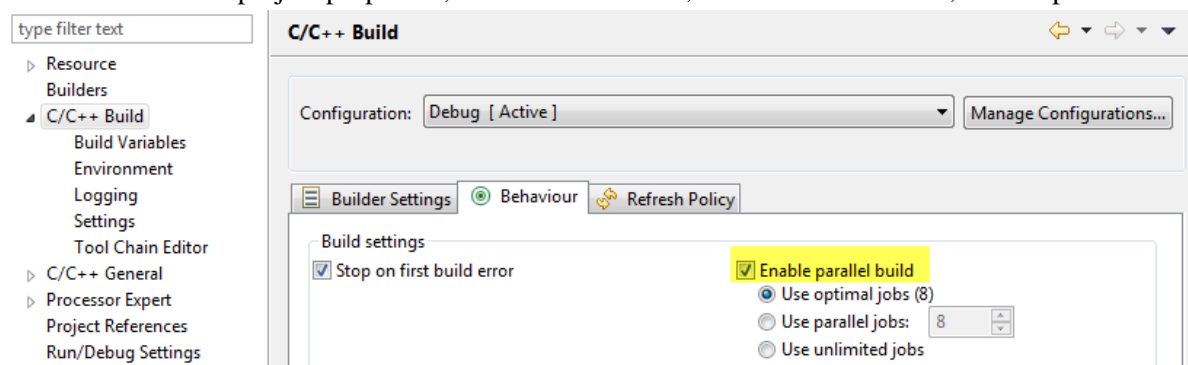
- ▲ MKV1x
 - ▲ KV10Z (75 MHz)
 - MKV10Z16xxx7
 - MKV10Z32xxx7
- ▲ MKV3x
 - ▲ MKV31F (100MHz)
 - MKV31F128xxx10
 - ▲ MKV31F (120MHz)
 - MKV31F256xxx12
 - MKV31F512xxx12

7 Known Issues and Workarounds

For latest information, training material and Frequently Asked Questions, visit the Kinetis Design Studio Community at <https://community.freescale.com/community/kinetis-design-studio>

- **RPM Installation under Linux:** Because of issues installing the .rpm installation packages on Linux 32bit systems, they are not provided at this time, which affects both RedHat and Centos 32bit distributions. Workaround: none, until an updated .rpm package is provided.
- ENGR00325412: **OpenSDA does not support K22F:** OpenSDA/CMSIS-DAP does not work with the FRDM-K22F board and will report "Error: Unsupported K-Family FAMID" Workaround: Use P&E or Segger OpenSDA debug probe for debugging. Alternatively, the Segger (<http://www.segger.com/opensda.html>) or P&E (<http://www.pemicro.com/opensda>) OpenSDA V2.1 debug application can be loaded on the FRDM-K22F board.
- **Build performance:** Projects have 'parallel' build not enabled by default, which can cause slower than needed builds.

Workaround: In the project properties, under C/C++ Build, in the 'Behaviour' tab, enable 'parallel' build:



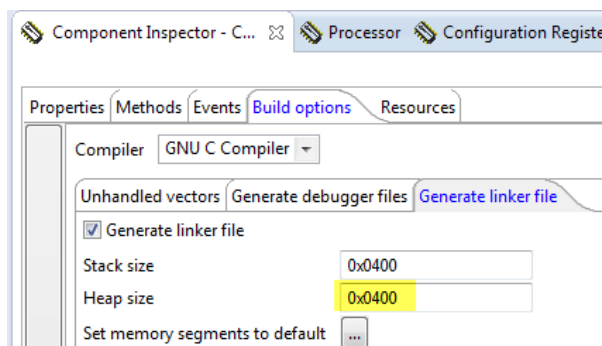
- ENGR00322691: **Path to Kinetis SDK in New Project Wizard:** If an absolute path to the Kinetis SDK is entered manually with a backslash ('\') at the end, then Processor Expert projects with SDK are not created correctly. Workaround is not to use any '\' at the end of the path.
- ENGR00322688: **Enabling a bare C project for Processor Expert:** There is a wizard which can be used to convert a normal C/C++ project into a Processor Expert project. Because the wizard is missing the information if that project shall be a Kinetis SDK+Processor Expert project or just a normal Processor

Expert project, that project might not compile correctly as include paths are missing.
Workaround is to add the extra include paths to the project compiler settings.

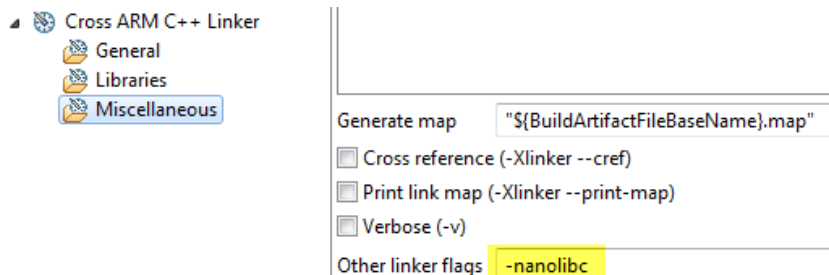
- ENGR00322576: **Reset_Handler not found**: Under rare conditions, e.g. switching fast between multiple Processor Expert Projects and then doing code generation, it could be that the project build returns an error that the Reset_Handler function is not found. The reason is that the links to the Kinetis SDK files are not created properly (see this discussion in <https://community.freescale.com/docs/DOC-100417>).
Workaround is to make sure that source code is generated again, especially the linker file. To force regeneration of the code, go to the properties of the CPU component or any other component and touch any of the settings (e.g. increase a value and decrease it again), then regenerate the code, this will re-generate the links to the Kinetis SDK files.
- ENGR00322502: **Illegal 'bool'**: The 'bool' type is redefined in PE_Types.h if stdbool is included before. This causes a compiler error (illegal 'bool' redeclaration). This issue can happen e.g. with using MQX 4.1.0 or with using C99 compiler settings or if 'bool' is defined in the application sources.
Workaround is to guard the declaration of bool with

```
#ifndef bool
...
#endif
```

in the source file to avoid redeclaration of the type.
- ENGR00325159: **Heap Size for Processor Expert projects with Kinetis SDK**: The GNU newLib-nano library used requires a certain amount of heap memory which gets allocated and used during the startup code. For projects created by the wizard for Processor Expert with using the Kinetis SDK, the heap size allocated in the CPU component settings is too small (400 or 0x190, instead of 0x400 (hex)).
Workaround: In the CPU component settings, under the 'Build options' tab > Generate linker file, increase the heap size from 400 to at least 0x400 (hex).



Another workaround is to **remove** - from -nanolib linker option:



- ENGR00325159: **Heap Size needed for newLib-nano**: The newLib-nano in KDS requires a heap size larger 0x400 (hex) allocated. If not enough heap is reserved in the linker file, then the application will crash

in the startup code before reaching main.

```
/* Linker file for GNU C Compiler */

/* Entry Point */
ENTRY(Reset_Handler)

HEAP_SIZE = DEFINED(__heap_size__) ? __heap_size__ : 0x00000400;
STACK_SIZE = DEFINED(__stack_size__) ? __stack_size__ : 0x00000100;
```

Workaround: Make sure you have enough heap space allocated in the linker file (open the linker .ld file in the project, and increase the HEAP. In the bare projects created by the New Project Wizard this is in the linker .ld file with HEAP_SIZE. Increase that value to at least 0x400.

- ENGR00315901: **Conditional breakpoints and watchpoints:** Using breakpoints and watchpoints with ignore counts do not work/are ignored.
Workaround: none.
- ENGR00316447, SO66: **Breakpoints inside ISR:** The debugger is sometimes confused when hitting a breakpoint inside an interrupt service routine / exception handler and produces a lot of memory reads and output, effectively blocking debug operation. The issue seems to be related to some assembly instructions (<https://community.freescale.com/thread/327560>)
Workaround: Add
set backtrace limit 20
to the gdb list of 'Command' in the debug/launch configuration (the value of 20 is an arbitrary number, but should be a small number), see <https://community.freescale.com/thread/327560>.
- ENGR00325362: **Debugging with old OSJTAG/OSBDM firmware:** if debugging a board with old and outdated OSBDM/OSJTAG firmware, then the P&E GDB server will not be able to automatically update the firmware on it. The message
Old OSJTAG/OSBDM firmware has been detected. Please update firmware and relaunch debug session.
is written to the Console log of the debugger, and debugging will not work correctly.
Workaround: You need to update the OSBDM/OSJTAG firmware. This can be done with the P&E Firmware updater utility which can be downloaded from <http://www.pemicro.com/osbdm>
- ENGR00325557: **Power off Targets for P&E debug devices:** For P&E interfaces that have the option of providing power to the target (P&E Multilink Universal FX, Tracelink) the check box for powering off the target on exit will not work.
Workaround: do a manual power-off.
- ENGR00325361: **Library mode for Kinetis SDK projects:** In the project properties, under *Processor Expert* > *Kinetis SDK* it is possible to configure to use the project with SDK libraries instead of individual source files. If using libraries, then the corresponding libraries needs to be first built in the Kinetis SDK. For doing this, you can import the library project (do not copy it!) from
\${KSDK_PATH}\lib\ksdk_platform_lib\kds\K64F12 into the workspace and build it. Update the linker settings to include that library.
- ENGR00325567: **Wrong path separator on Linux:** Projects created by the New Project Wizard (NPW) on Linux host machines cannot be compiled because of wrong path separator ('\ instead of '/') used. This affects projects built for the Kinetis SDK with the 'standalone' option enabled.
Workaround: In the project/compiler settings for the include source folder paths, replace the '\ with '/'.
- PEXMCU-289: **Bare project for KE02 does not run:** I creating a 'bare' project (without Processor Expert) for the MKE02 (e.g. on FRDM-KE02Z) then the application will not start properly. The reason is a) the HEAP size and b) the needed flash protection security bits.

Workaround: a) In the linker *.ld file, increase the HEAP_SIZE from 0x100 to 0x400. b) In startup_MKE02Z2.S, remove the "a" section attribute and change the last 32bit word of the .FlashConfig section:

```

startup_MKE02Z2.S
/* Flash Configuration */
.section .FlashConfig //, "a"
.long 0xFFFFFFFF
.long 0xFFFFFFFF
.long 0xFFFFFFFF
.long 0x87FFFFFF
//.long 0xFFFFFFFF

```

8 Revision history

Table 12. summarizes revisions to this document.

Table 12. Revision History KDSRN - V1.1 Release Notes.docx	
Revision	Change description
Rev. 0	Initial Release
Rev. 1.1.0	Updated issue and workaround list.
Rev. 1.1.1	Updates for V1.1.1 release.

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