

SILICON LABS EFM32 32-bit MCU Gecko SDK Suite



SILICON LABS EFM32 32 bit MCU Gecko SDK Suite User Guide

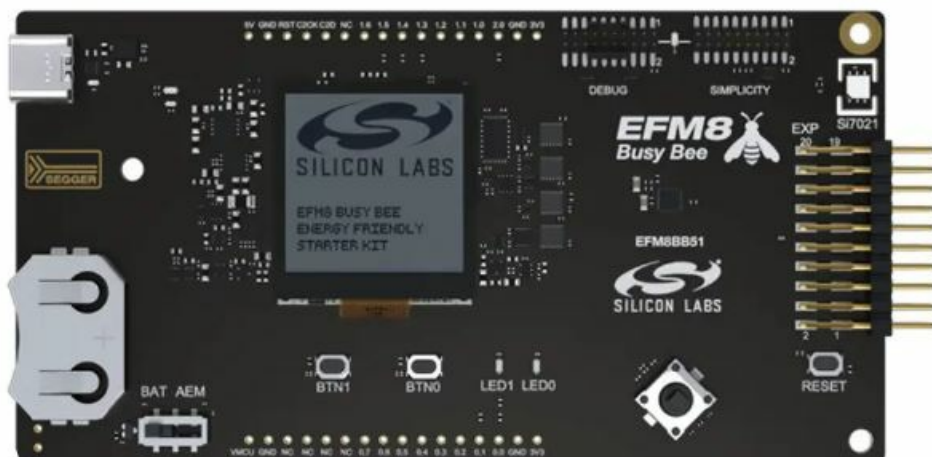
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SILICON LABS EFM32 32-bit MCU Gecko SDK Suite



Product Information

Specifications

Product Name: 32-bit MCU SDK 6.6.1.0 GA

Gecko SDK Suite Version: 4.4 February 14, 2024

Compatibility: EFM32 and EZR32 development kits

Key Features: IAR 9.40.1, sample applications

Compatible Compilers: IAR

Product Usage Instructions

Installation

To install the 32-bit MCU SDK, follow these steps:

1. Download the SDK from the provided link.
2. Run the installer and follow the on-screen instructions.
3. After installation, set the install location to the specified directory based on your operating system.

Using Sample Applications

The SDK includes sample applications for EFM32 and EZR32 development kits. To utilize these samples:

1. Open the respective sample project in your preferred IDE.
2. Build and compile the project according to the provided instructions.
3. Upload the compiled code to your development kit to test the application.

Frequently Asked Questions

Q: How can I subscribe to Security Advisories?

A: To subscribe to Security Advisories, log in to the Silicon Labs customer portal, then select Account Home. Click HOME to go to the portal home page and then click the ManageNotifications tile. Make sure that 'Software/Security Advisory Notices & Product Change Notices (PCNs)' is checked, and that you are subscribed at minimum for your platform and protocol. Click Save to save any changes.

The 32-bit MCU SDK provides sample applications for EFM32 and EZR32 development kits.

This document covers the following SDK versions:

- 6.6.1.0 released February 14, 2024
- 6.6.0.0 released December 13, 2023

KEY FEATURES

- Added support for new OPNs
- Upgrade compilers to GCC 12.2.1 and IAR 9.40.1

Compatibility and Use Notices

For information about security updates and notices, see the Security chapter of the Gecko Platform Release notes installed with this SDK or on the Silicon Labs Release Notes page. Silicon Labs also strongly recommends that you subscribe to Security Advisories for up-to-date information. For instructions, or if you are new to the 32-bit MCU SDK, see Using This Release.

Compatible Compilers:

This version of the 32-bit MCU SDK is compatible with the following tool chains.

- IAR Embedded Workbench for ARM (IAR-EWARM) version 9.40.1
- GCC (The GNU Compiler Collection) version 12.2.1 (provided with Simplicity Studio)

New Items

- This release of the Gecko SDK (GSDK) will be the last with combined support for all EFM and EFR devices, except for patches to this version as needed. Starting in mid-2024 we will introduce separate SDKs:
 - The existing Gecko SDK will continue with support for Series 0 and 1 devices.
 - A new SDK will cater specifically to Series 2 and 3 devices.
- The Gecko SDK will continue to support all Series 0 and 1 devices with no change to the long-term support, maintenance, quality, and responsiveness provided under our software policy.
- The new SDK will branch from Gecko SDK and begin to offer new features that help developers take advantage of the advanced capabilities of our Series 2 and 3 products.
- This decision aligns with customer feedback, reflecting our commitment to elevate quality, ensure stability, and enhance performance for an exceptional user experience across our software SDKs.

New in release 6.6.0.0

Added support for the following new OPNs:

- BRD2500B
- BRD2501B

Known Issues in the Current Release

Known issues in release 6.6.0.0

There is a known issue, detected when updating the GCC toolchain from version 10.3 to 12.2, which increases the RAM usage by about 400 bytes in some cases.

Using This Release

The 32-bit MCU SDK v 64.x is installed as part of Gecko SDK (GSDK) 4.4.x, the suite of Silicon Labs SDKs. To quickly get started with the GSDK, install Simplicity Studio 5, which will set up your development environment and walk you through GSDK installation. Simplicity Studio 5 includes everything needed for IoT product development with Silicon Labs devices, including a resource and project launcher, software configuration tools, full IDE with GNU toolchain, and analysis tools. Installation instructions are provided in the online Simplicity Studio 5 User's Guide.

Alternatively, Gecko SDK may be installed manually by downloading or cloning the latest from GitHub. See

https://github.com/Sili-conLabs/gecko_sdk for more information. This release contains the following. EFM32 and EZR32 sample applications This SDK depends on Gecko Platform. The Gecko Platform code provides functionality that supports protocol plugins and APIs in the form of drivers and other lower layer features that interact directly with Silicon Labs chips and modules. Gecko Platform components include EMLIB, EMDRV, RAIL Library, NVM3, and mbedTLS. Gecko Platform release notes are available through Simplicity Studio's Launcher Perspective.

The GSDK default install location has changed with Simplicity Studio 5.3.

- Windows: C:\Users\<NAME>\SimplicityStudio\SDKs\gecko_sdk
- MacOS: /Users/<NAME>/SimplicityStudio/SDKs/gecko_sdk

Security Information

Security Advisories

To subscribe to Security Advisories, log in to the Silicon Labs customer portal, then select Account Home. Click HOME to go to the portal home page and then click the Manage Notifications tile. Make sure that 'Software/Security Advisory Notices & Product Change Notices (PCNs)' is checked, and that you are subscribed at minimum for your platform and protocol. Click Save to save any changes.

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Support

Development Kit customers are eligible for training and technical support. Use the Silicon Laboratories website www.silabs.com/prod-ucts/mcu/32-bit to obtain information about all EFM32 Microcontroller products and

services, and to sign up for product support.

You can contact Silicon Laboratories support at www.silabs.com/support

Simplicity Studio

One-click access to MCU and wireless tools, documentation, software, source code libraries & more. Available for Windows, Mac and Linux

- IoT Portfolio
 - www.silabs.com/IoT
- SW/HW
 - www.silabs.com/simplicity
- Quality
 - www.silabs.com/quality
- Support & Community
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References

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