

Quick Start Guide

EFM32 Gecko Development Kit

***Congratulations with your new EFM32 Gecko Development Kit.
It contains the following:***

- EFM32 Development Kit Motherboard
- EFM32 MCU Board
- EFM32 Prototyping Board
- USB Cable
- CD with IAR development environment

Please follow these simple steps to start developing and debugging an application on the Development Kit.

1: Install IAR Embedded Workbench from the CD, or download and install Keil MDK-ARM from www.keil.com/arm/mdk.asp



2: Download and install the J-Link software from www.segger.com/cms/jlink-software.html

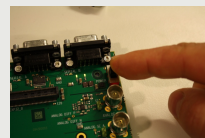


When asked during installation, make all applications use the newest JLinkARM.dll.

3: Connect the Development Kit to the PC using the USB cable.



4: Power up the Development Kit.



5: Go to www.energymicro.com/ downloads to download and install "EFM32_Gecko_DK_Installer.zip".



6: Please refer to the following sections for details on how to proceed for the individual development environments.

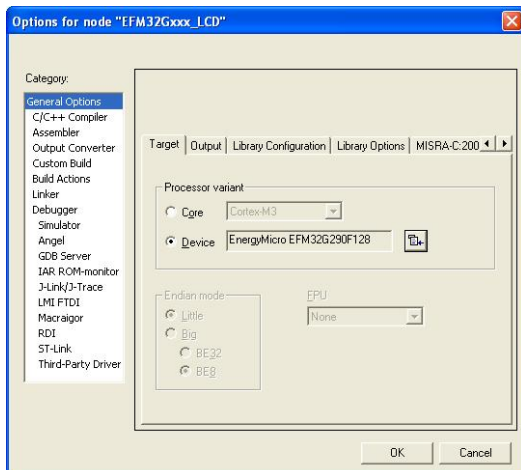
For details on the Kit please refer to the EFM32 Gecko Development Kit User Manual.

1 IAR

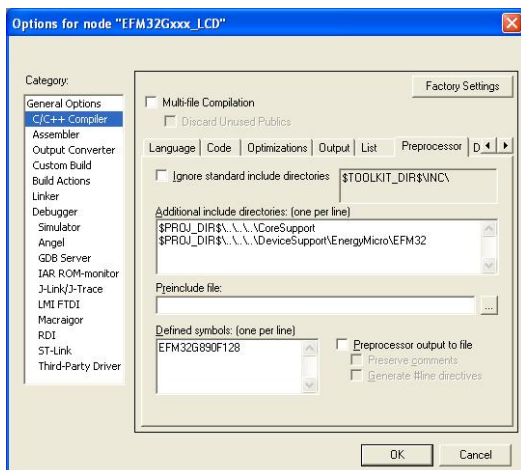
- Open the IAR example project (default location):

C:\Program Files\EnergyMicro\EFM32 Gecko DK\boards\EFM32_Gxxx_DK\examples\blink\iar

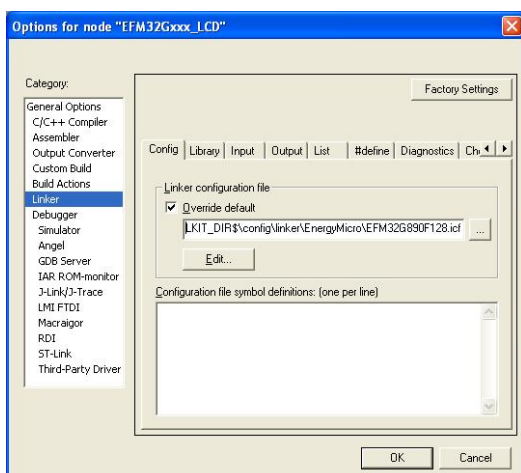
- Open project options (Project->Options).
- Select correct EFM32 device (e.g. "EFM32G890F128") to set corresponding debugger register definition file.



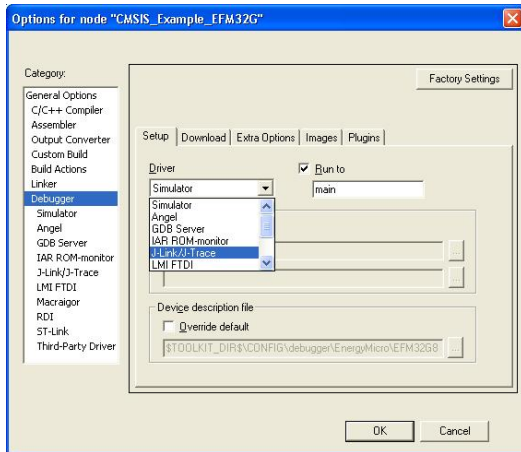
- Under C/C++ Compiler tab, add partnumber (e.g. "EFM32G890F128") to the "Define" field. This selects the correct device in the EFM32 header file.



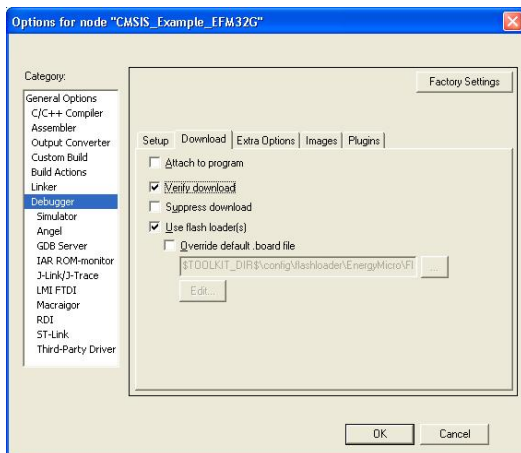
- In order to set correct constraints of the flash and ram, select linker file according to the chosen EFM32 device.



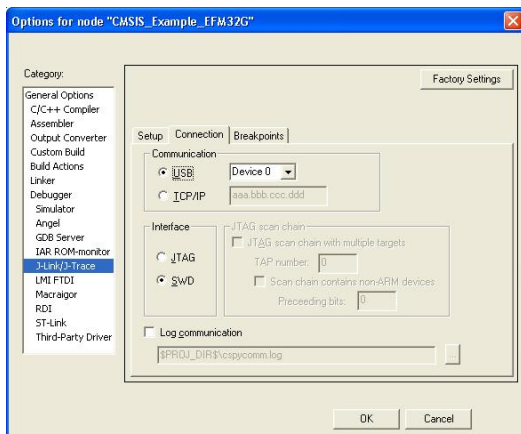
- Set debugger driver to "J-Link/J-Trace" (This is the debugger embedded on the EFM32 Kit).



- Tick off "Verify download" and "Use flash loader(s)" under the Download tab in order to program the flash.



- Set the J-Link driver to use "SWD", USB Device 0. The EFM32 only supports Serial Wire Debug (SWD).

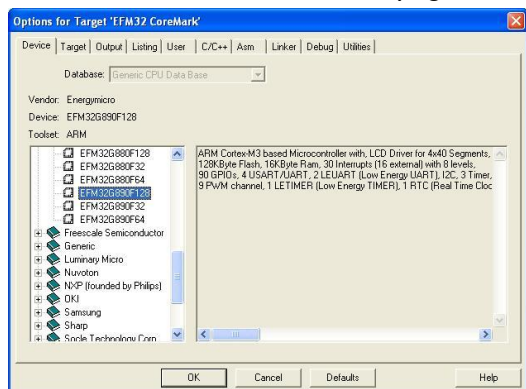


- Compile, download and start debugging by pressing CTRL+D.

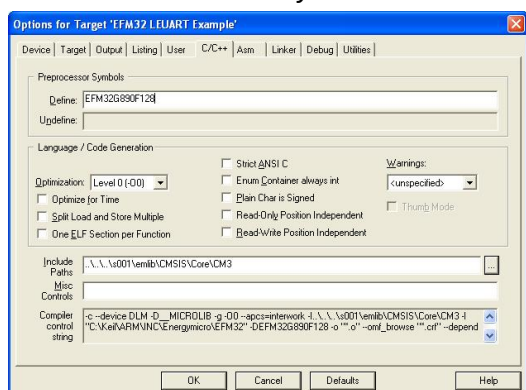
For details on the development environment please refer to the relevant user guides from IAR.

2 Keil

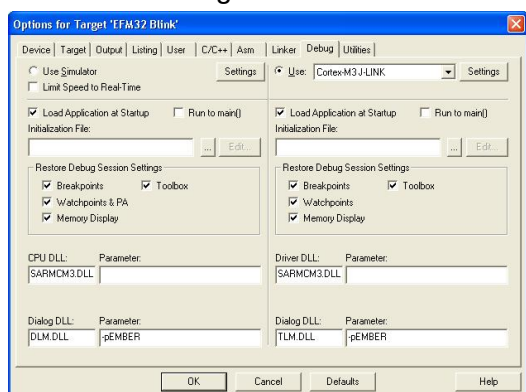
- Copy the file "JLinkARM.dll" from C:\Program File\SEGGER\JLinkARM_Vxxxx\ (xxxx corresponds to the version number) into the folder (default location) C:\Keil\ARM\Segger\.
- Open the Keil example project (default location):
C:\Program Files\EnergyMicro\EFM32 Gecko DK\boards\EFM32_Gxxx_DK\examples\blink\arm
- Open project options (Project->Options for Target).
- Select correct EFM32 device (e.g. "EFM32G890F128") to set correct memory ranges etc.



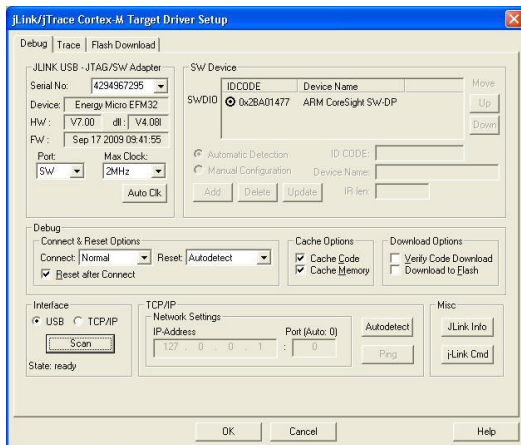
- Under C/C++ tab add partnumber (e.g. "EFM32G890F128") to the "Define" field. This selects the correct header-file for your EFM32.



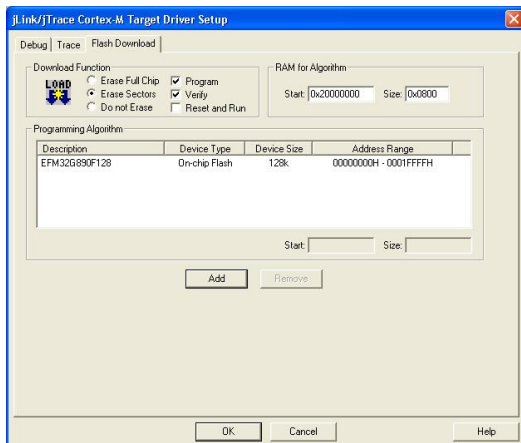
- Under the Debug tab set to use "Cortex-M 3 JLink" for debugging. Then press "Settings".



- Press "Scan" and set Port to "SW". The Device field shows "Energy Micro EFM32" as illustrated.



- Under the "Flash Download" tab make sure that the EFM32 flash loader is selected.

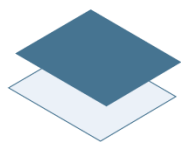


Note

If the EFM32G890F128 flash loader cannot be found, check that the file EFM32.FLW is present under your Keil installation directory, typically C:\Keil\ARM\Firmware\EFM32.FLW. If it is not, your version is too old. You either need to upgrade to a more recent version or get this file from the MDK-ARM support file package at www.energymicro.com/downloads.

- Compile, download and start debugging by pressing CTRL+F5.

For details on the development environment please refer to the relevant user guides from Keil.



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