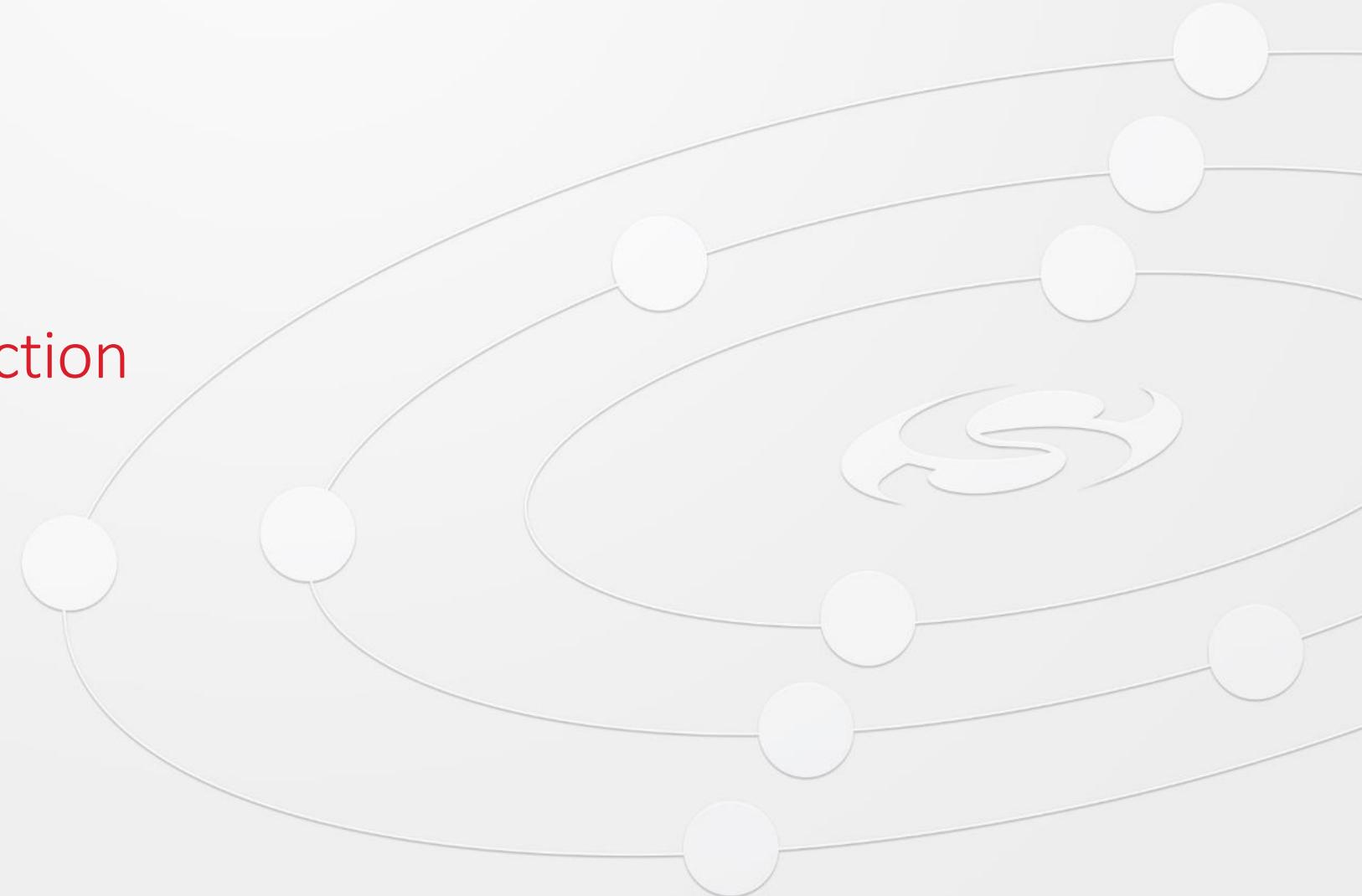




Simplicity Studio Introduction

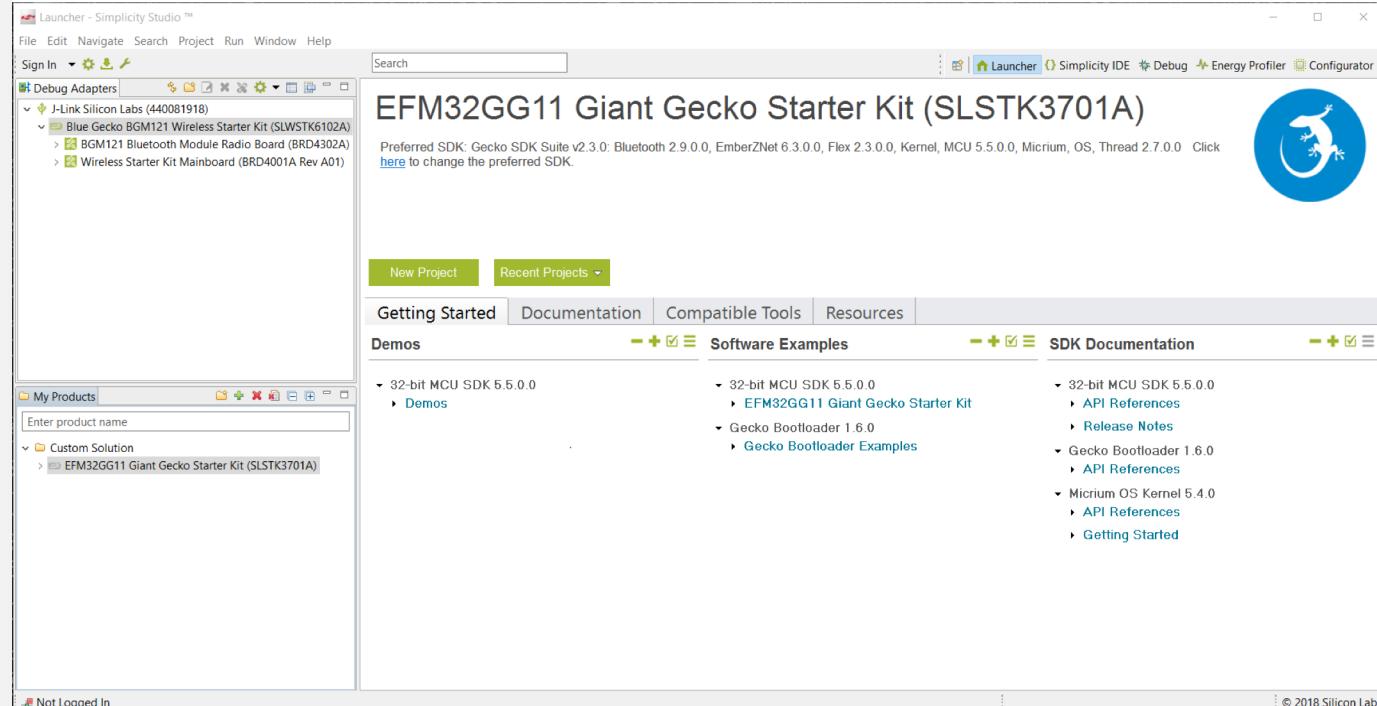
AUGUST 2018



Course Outline

- Simplicity Studio Overview
- Simplicity Studio Installation
- Basic Navigation
- Simple Project Creation Flow Example
- Simplicity Commander Overview
- Resource List for More Advanced Simplicity Studio Topics

Simplicity Studio Overview



- Main Software Tool for all Customers
- Quick Start with Demos and Software Examples
- Provides Software Development Environment
 - Software Development Kits (SDKs)
 - Toolchains
 - Debugger
 - Analysis: Energy Profiler, Network Analyzer
- Provides Documentation for all parts
 - Reference Manuals, Datasheets, Schematics, BOMs
 - Users Guides, Application Notes, API documentation
- Supports Windows OS, MacOS and Linux

Simplicity Studio Installation

- Steps to get to know Simplicity Studio:

1. Watch Installation Training Video

<https://www.youtube.com/watch?v=nJfU0Mu51QU&t=0s&list=PL-awFRrdECXu4WdVgkM7eb977oRlsNge8&index=9>

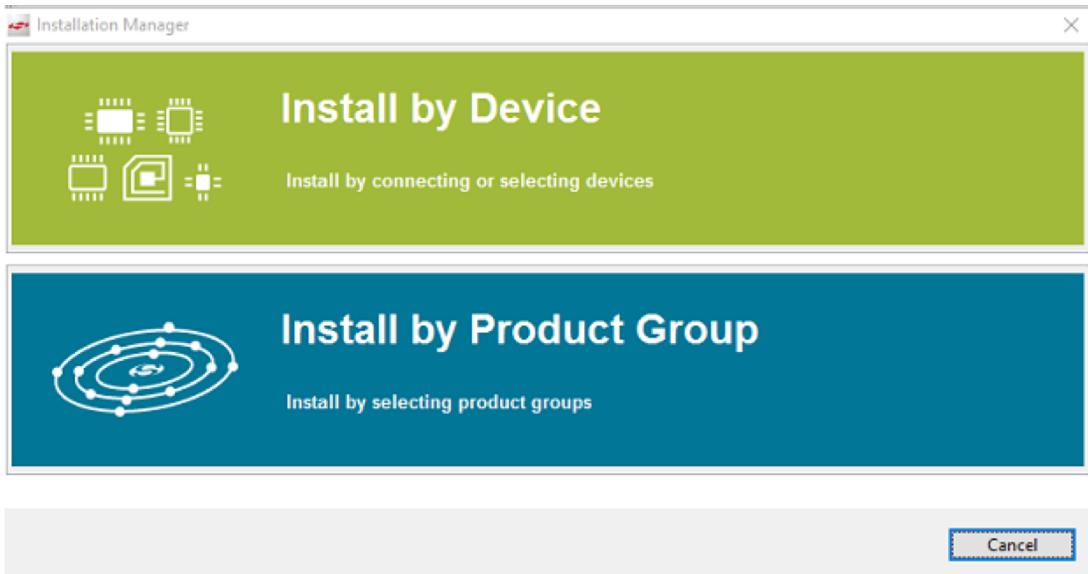
1. Read through or skim through User's Guide (AN0822)
2. Install Simplicity Studio

(download installer from: <https://www.silabs.com/products/development-tools/software/simplicity-studio>)

- On Welcome screen Sign In with Silicon Labs credentials if Wireless device (EFR32 family) support is needed
- If a development kit (Starter Kit (STK) or Wireless STK - WSTK) is installed accept Device Inspector popup
- For most users the recommendation is to choose “Install by Product Group” and choose relevant group(s)

Installation Manager

- It is recommended to select “Install by Product Group”
 - Gives support for current product selection as well as future selections



Selecting by Product Group

Select Development Options to use with your products.

Wireless & RF

-  Bluetooth
-  Zigbee

-  Thread

-  Proprietary

Xpress Interface

8-bit Microcontrollers

Sensors

32-bit Microcontrollers

- There are five product groups to choose from:
- Xpress Products – These are fixed function devices such as USB bridge, USB audio parts and other configurable interface products.
- EFM8 / C8051 8-bit MCU Products
- Sensor Products – Such as magnetic, temperature and humidity sensors
- EFM32 32-bit MCU Products – non-wireless MCUs
- Wireless Products – EFR32 series and legacy wireless products for Bluetooth, Zigbee, Thread and Proprietary protocol support (can be selected as subgroups)

Content Access Types and License Agreements

Installation Support Options

Content access.

Your access to content is shown below. Use the links to gain access.

Sign In for Software Access

[Sign In](#)

[Clear Credentials](#)

Sign In using your silabs.com user id for access to content.

Available Content

| | |
|---|--------------------------------|
|  8051 | Access Granted |
|  32 bit MCU | Access Granted |
|  Micrium OS | Sign In |
|  Apple Homekit | Sign In |
|  Bluetooth Mesh SDK | Sign In |
|  Bluetooth | Sign In |
|  EmberZNet (zigbee) | Sign In |
|  Flex | Sign In |
|  Thread | Sign In |

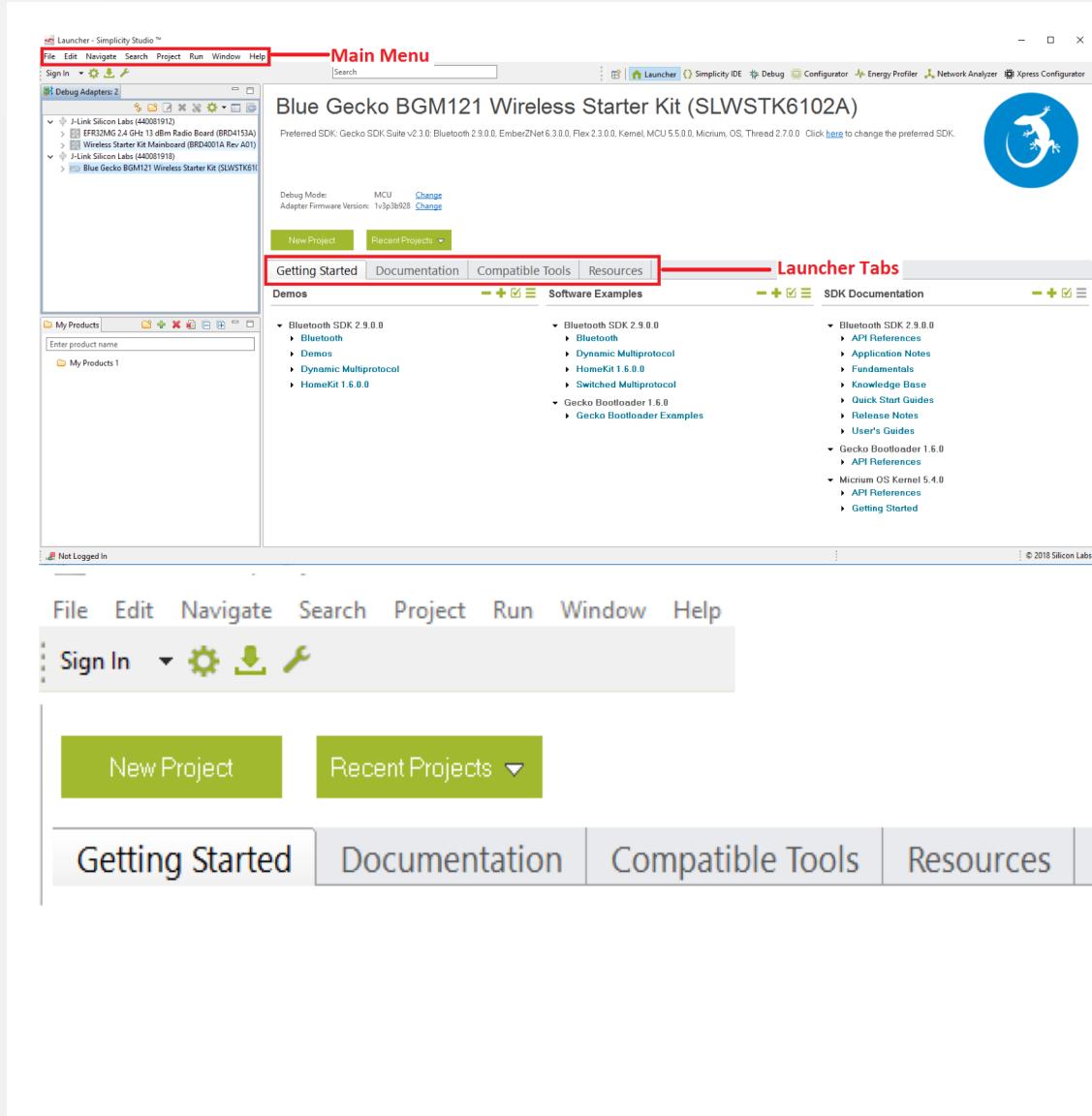
Click "Next" to skip this step.

- The Content Access screen - content types, Simplicity Studio Sign In access types
- Sign In is required for Wireless SDK access
- License agreements screen details license required for installation.
- Installation Screen – Shows Installation progress
- Training Videos can be watched during installation
- Training and other videos also available on Silicon Labs YouTube Channel:
<https://www.youtube.com/playlist?list=PL-awFRrdECXu4WdVgkM7eb977oRlsNge8>
- When prompted press OK to restart Simplicity Studio
- Product Tour – gives simple steps to get started using Solutions Window.

Simplicity Studio Navigation



Launcher Perspective Navigation



■ Launcher perspective main areas

■ Main Menu

■ Useful menu selections:

- File (Import, Export, Switch Workspace)
- Window (Preferences)
- Help (Installation Details, Report Bug)

■ Launcher Tabs

■ Getting Started – Access demos and examples

■ Documentation – most selection options

■ Compatible Tools – development tool selection

■ Resources – Links to online resources

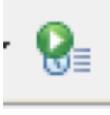
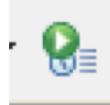
■ New Project – Gives finer control than Examples

■ Recent Projects – Quick navigation to projects in workspace

Main Functionality

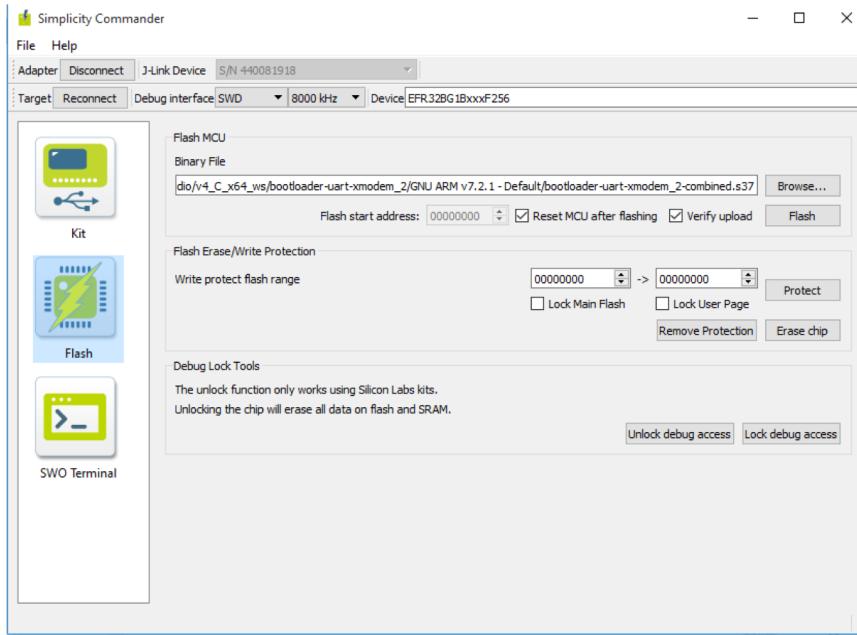
- AN0822 - Simplicity Studio User's Guide provides basic overview of major functions of Simplicity Studio
- Eclipse Based Integrated Development Environment (IDE)
- Major Sections (Perspectives):
 - Launcher – Provides information on supported products including documentation, demos, example projects
 - Simplicity IDE – Main Development window – Project Manager, Editor, Build support
 - Debugger – Allows examination of program execution and debugging
 - Application Builder – Wireless product application configuration tool
 - Energy Profiler – Analysis tool for application energy consumption, code correlation supported on 32-bit devices
 - Network Analyzer – Wireless Protocol analysis tool
 - Hardware Configurator – Pin configuration and on 8-bit parts peripheral initialization
 - Xpress Configurator – Interface part configuration tool
 - Capacitive Sense Profiler – Analysis tool for capacitive sensor inputs

Simple Project Creation Flow Example

- Attach a Starter Kit or add one to My Products Window (example, type Pearl in My products and select EFM32PG12 Pearl Gecko Starter Kit (SLSTK3402A))
- Choose a Software Example Project (example - assuming supporting SDK is installed, expand “Pearl Gecko 3402 Starter Kit” and select SLSTK3402A_blink)
- Build project (Generate first. Click Build icon ) (For Wireless projects – Generate first.)
- Launch Debugger -  then step through project, set breakpoints in source code.
- Launch Energy Profiler -  Profile as Simplicity Energy Profiler Target
- If a Wireless Project, Launch Network Analyzer -  Profile as Network Analyzer Target

Simplicity Commander Overview

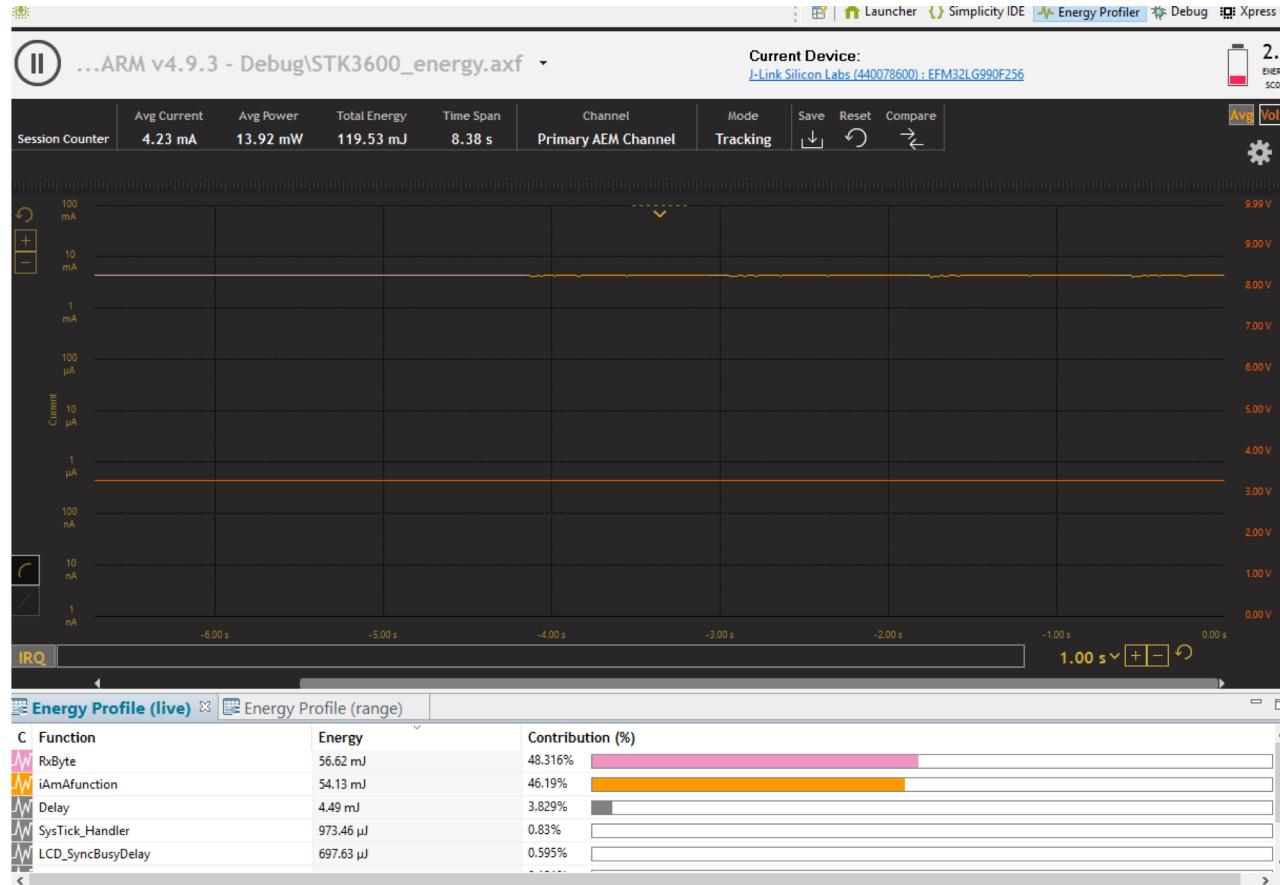
- Simplicity Commander is a tool available from within Simplicity Studio, mainly used to flash images



- Also a command line version ‘commander’ is available that is more powerful, see “UG162: Simplicity Commander Reference Guide”

Additional Resources

- User's Guide 343: Multi-Node Energy Profiler – provides details on how to use the Energy Profiler and also how to modify a software project to enable code correlation.



Thank you!

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