

W

MAT-204

Smarter Home Designs with Matter and Thread

Sébastien Parent-Charette | August 2023



Agenda

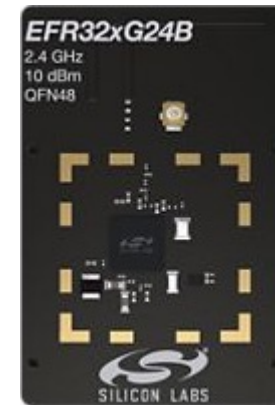
- 01 Getting started
- 02 Testing with an ecosystem
- 03 Adding an extra endpoint
- 04 Testing again with our new features
- 05 Lab Manual

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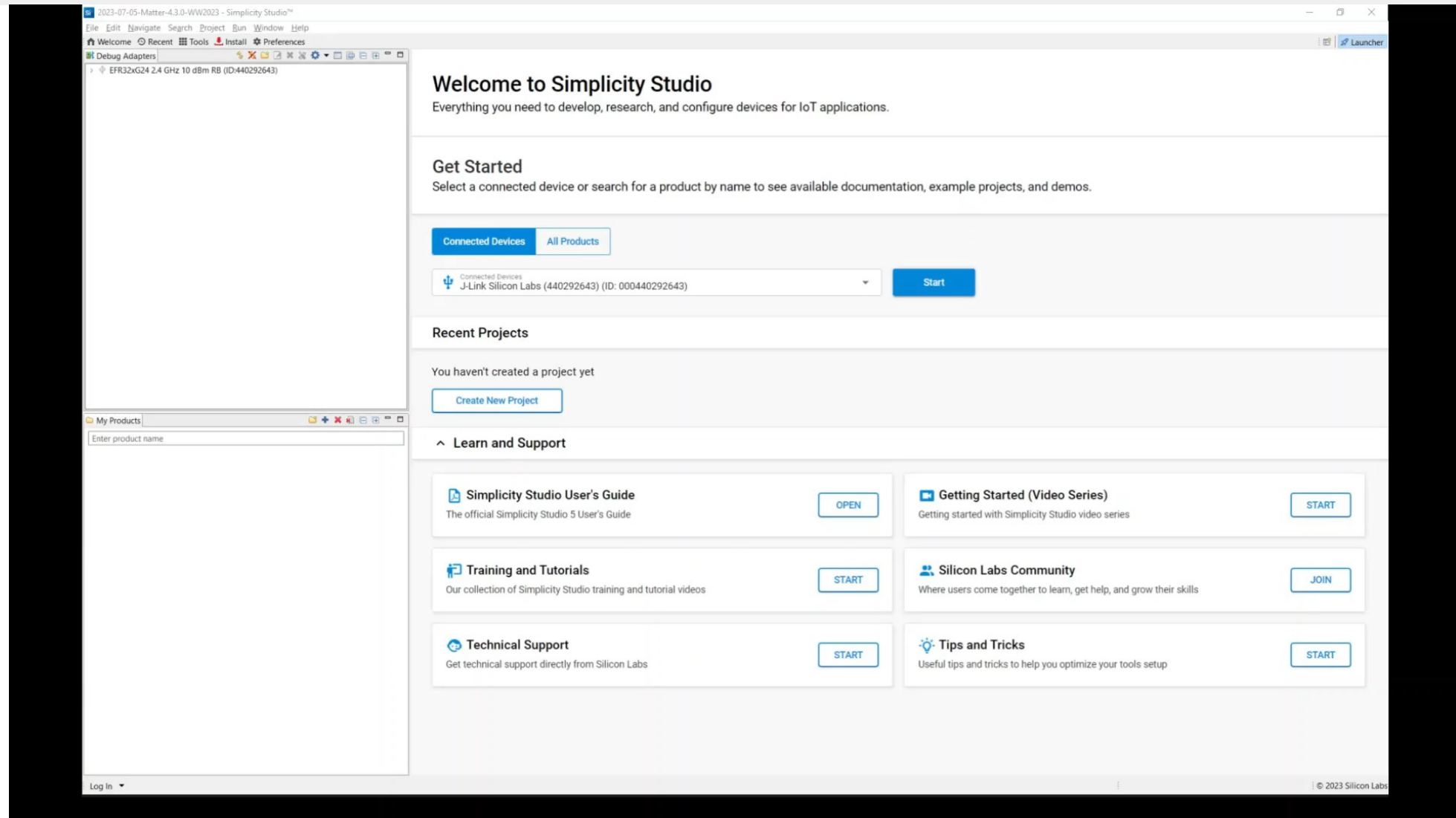
Getting started

Getting started

- Requirements:
 - Simplicity Studio 5
 - GSDK 4.3.0
 - MGE 2.0.0
 - BRD 4186C & WSTK
- Using Simplicity Studio 5 and the MGE (Matter GSDK Extension)
- Starting from the Matter lock over Thread sample app
- Using a BRD4186C developer board with an EFR32 MG24
- Compiling & testing the project with the device



Getting started video



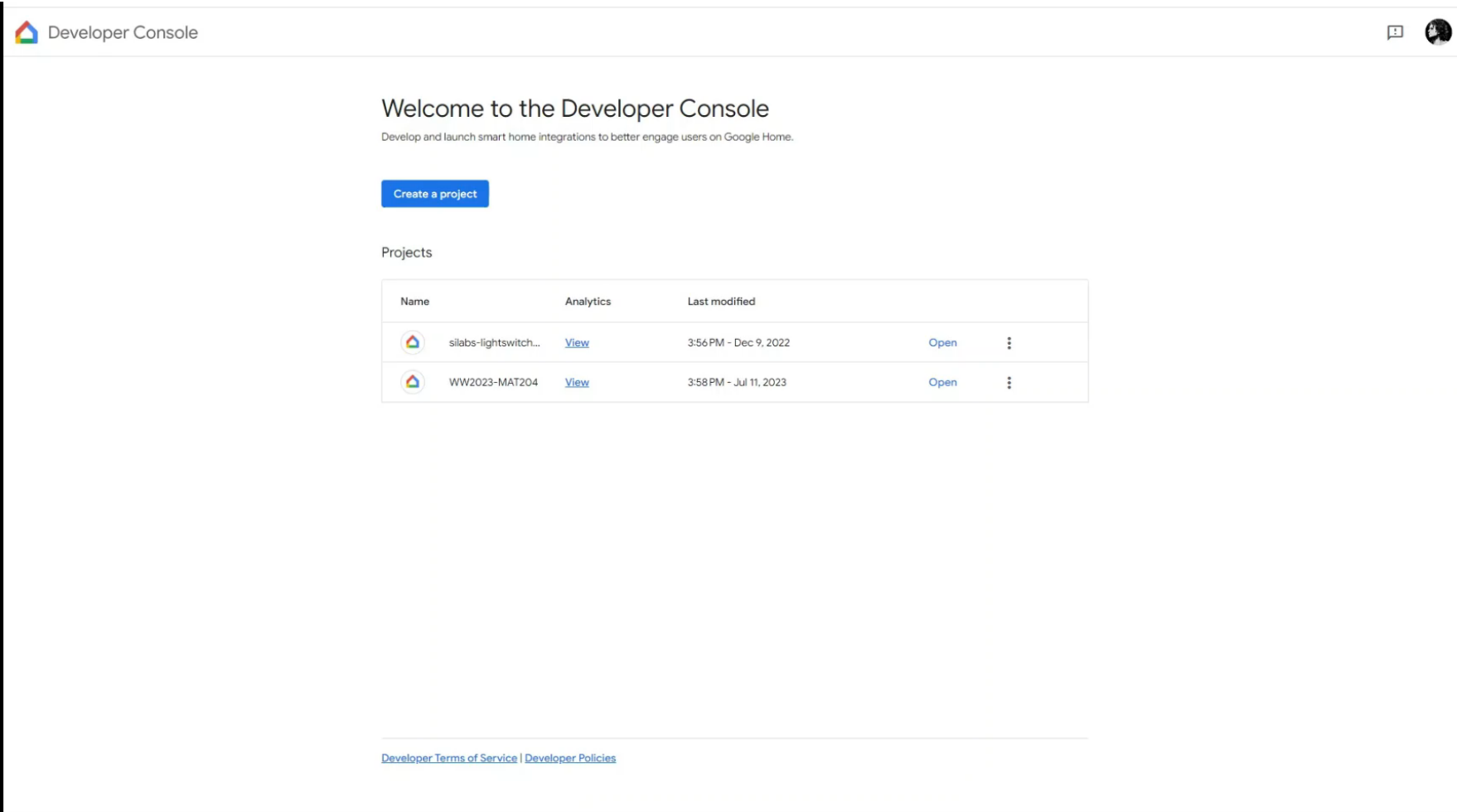
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Testing with an ecosystem





Testing with an ecosystem [Google Matter ecosystem]

- Requirements:
 - Google Nest Hub (2nd gen)
 - Compatible Android phone with Google Home App (GHA)
 - Google Cloud account / developer console
- Creating a Matter project & integration in the developer console
- Connecting the Matter device using GHA
- Testing functionality using the GHA and test button

Testing with an ecosystem [Google Matter ecosystem] video



The screenshot shows the Google Developer Console interface. At the top left, there is a logo and the text "Developer Console". At the top right, there are icons for help and a user profile. The main content area features a "Welcome to the Developer Console" heading, followed by a sub-heading "Develop and launch smart home integrations to better engage users on Google Home." Below this is a blue button labeled "Create a project". Underneath, the "Projects" section contains a table with two rows of project data.

Name	Analytics	Last modified	
 silabs-lightswitch...	View	3:56 PM - Dec 9, 2022	Open 
 WW2023-MAT204	View	3:58 PM - Jul 11, 2023	Open 

At the bottom of the page, there are links for "Developer Terms of Service" and "Developer Policies".

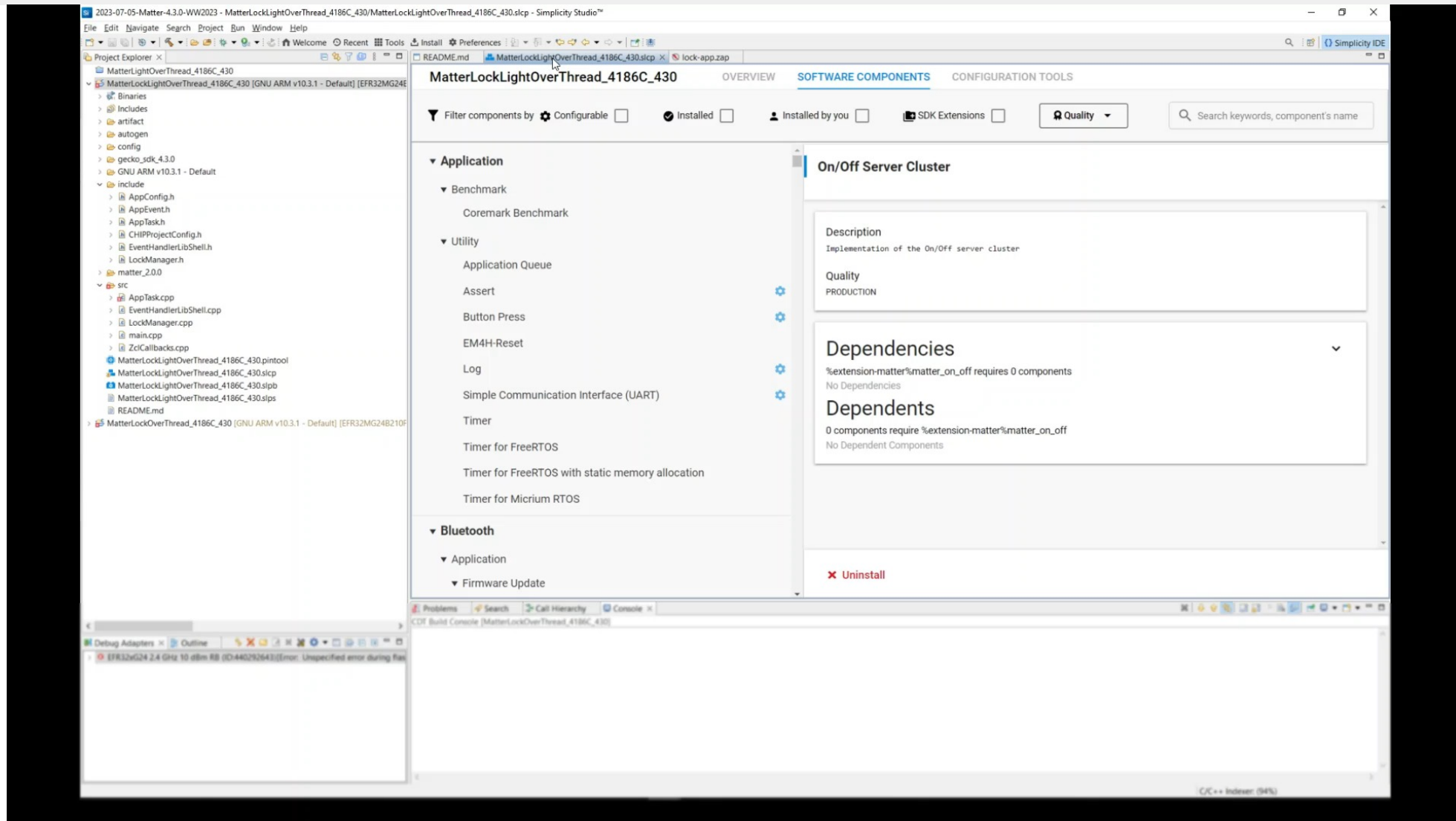
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Adding an extra endpoint

Adding an extra endpoint

- Modifying the software components in project
- Using the Zigbee configurator to configure endpoints and clusters
 - ZAP automatically generates required files
- Adding the lighting manager code/header files
- Modifying the code to implement the lighting endpoint
- Modify the BaseApplication to allow LED0 to be used for lighting
- Adding a new set of images for 4 states (on/off on lighting and lock)
- Modifying demo UI & LCD code to support two endpoints status (dual states)

Insert adding an extra endpoint video



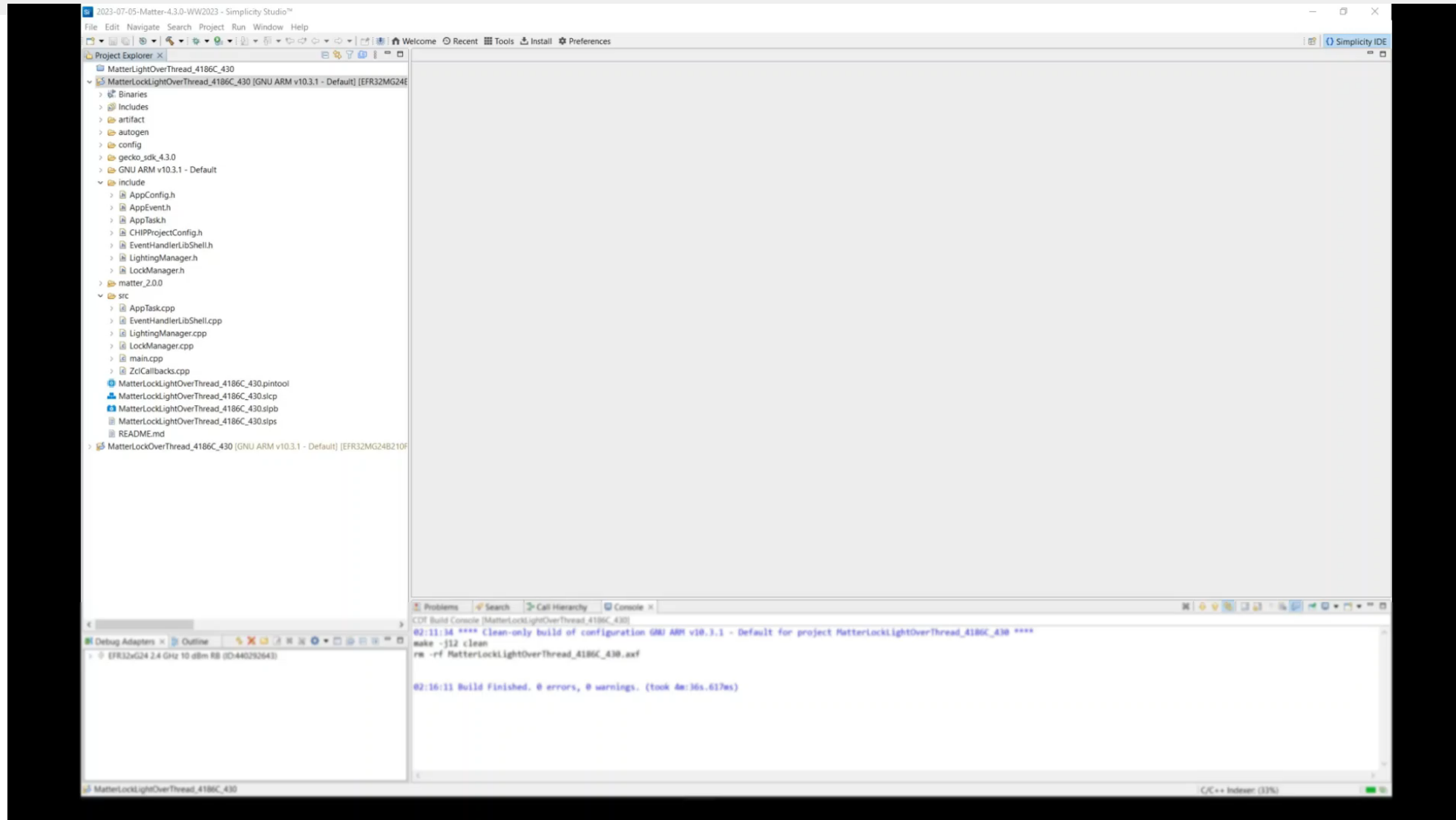
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Testing again
with our new features

Testing again with our new features

- Compiling the new project
- Uploading the firmware to the EFR32
 - Do a full erase (or factory reset) first to remove commissioning data
- Reconnecting with Nest Hub using GHA / Android device
 - Make sure to remove the device in GHA first
- Testing with GHA and WSTK+BRD4186C

Insert *testing again with our new features* video



Silicon Labs Matter Resources

- Example Matter Applications
 - https://github.com/SiliconLabs/matter_applications
- Matter Documentation
 - <https://docs.silabs.com/matter/latest>
- Matter on GitHub (SMG)
 - <https://github.com/SiliconLabs/matter>
- Matter Community
 - Questions: <https://community.silabs.com/s/topic/0TO1M000000qHZgWAM/matter>
 - Articles: <https://community.silabs.com/s/topic/0TO1M000000qHZgWAM/matter?tabset-178da=2>
- Matter Page
 - <https://www.silabs.com/wireless/matter>

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Thank you!