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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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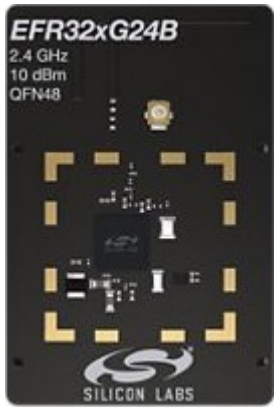
Getting started

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



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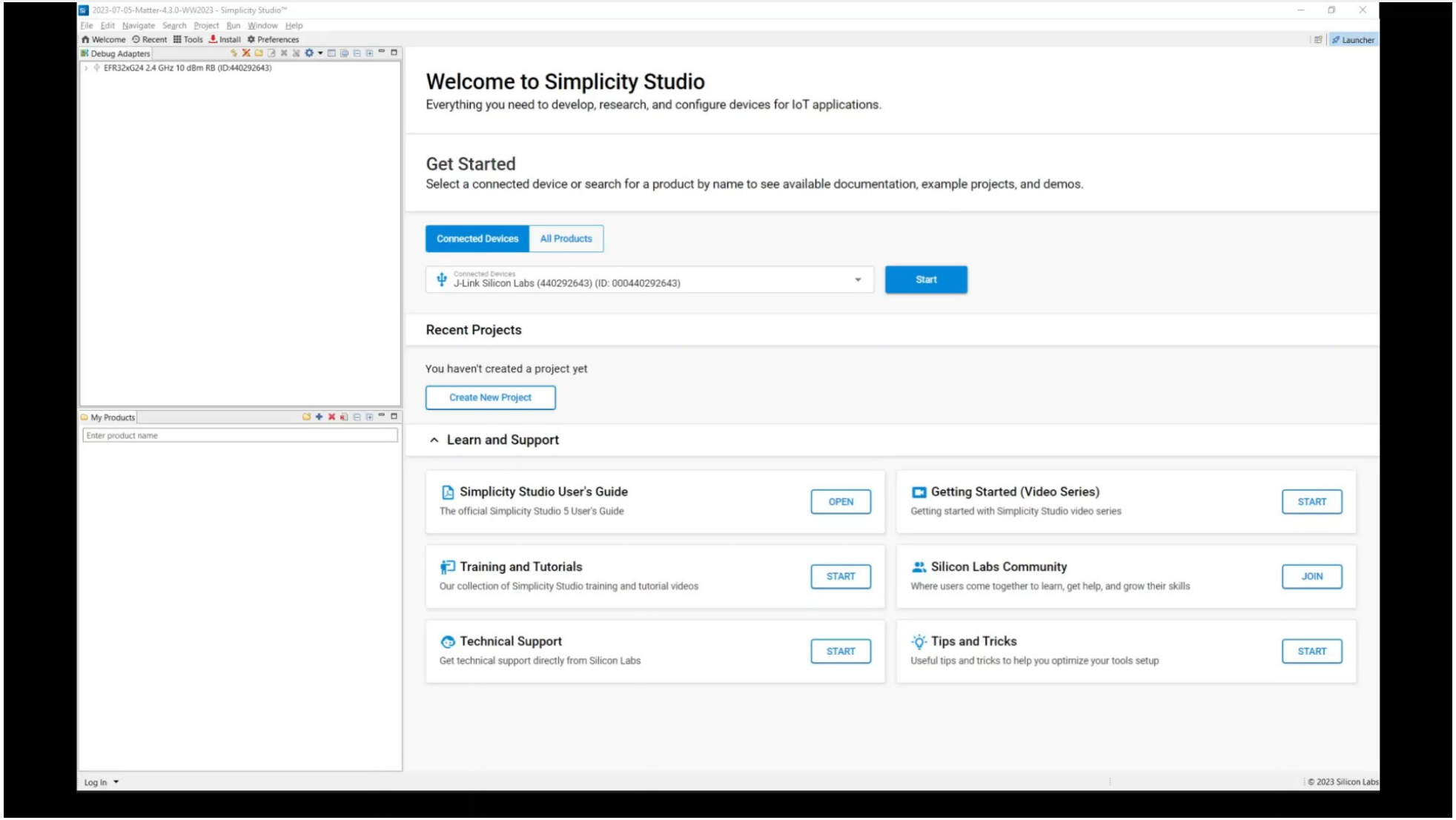
Getting started video



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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

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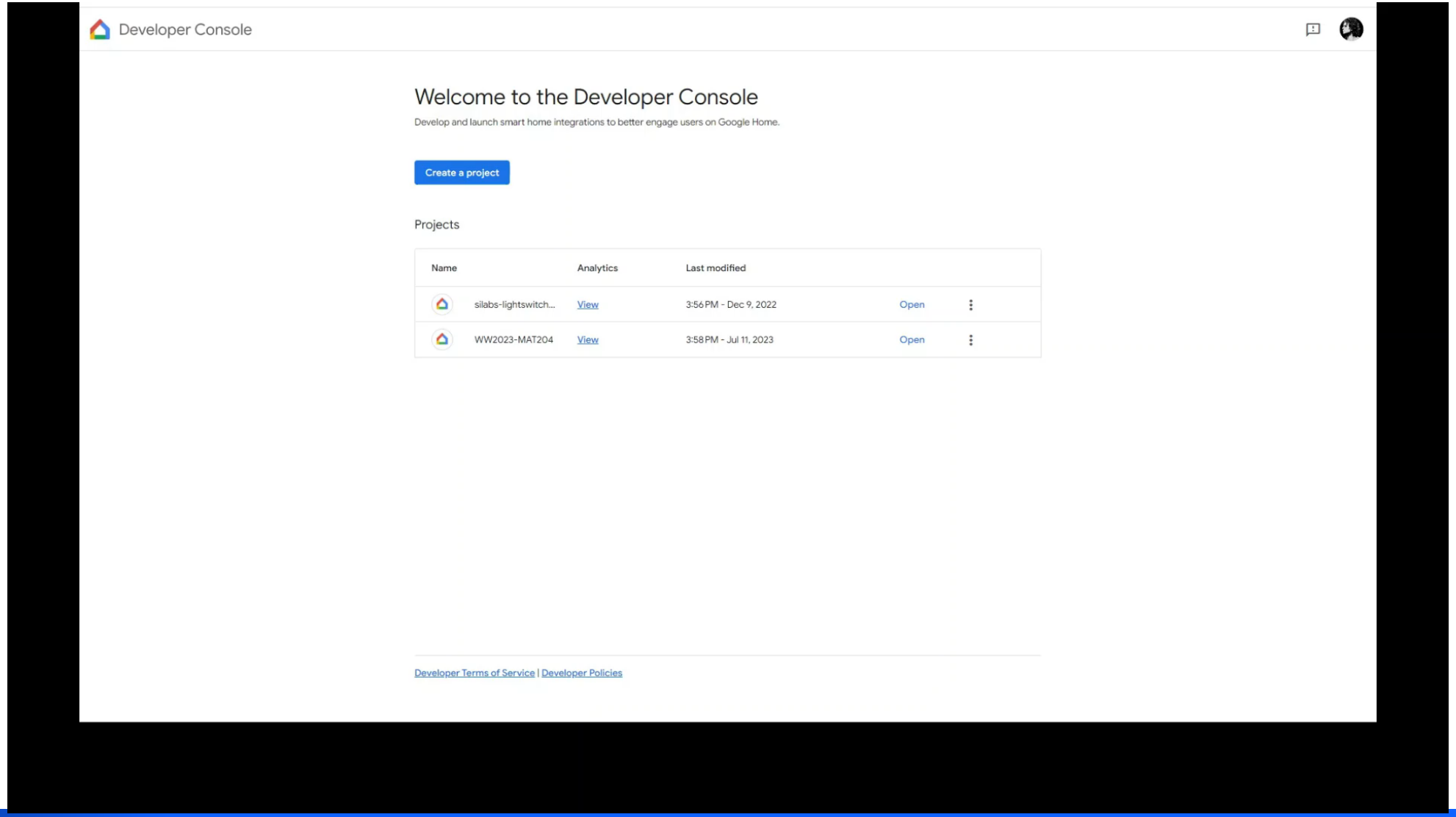
Testing with an ecosystem [Google Matter ecosystem] video



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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)

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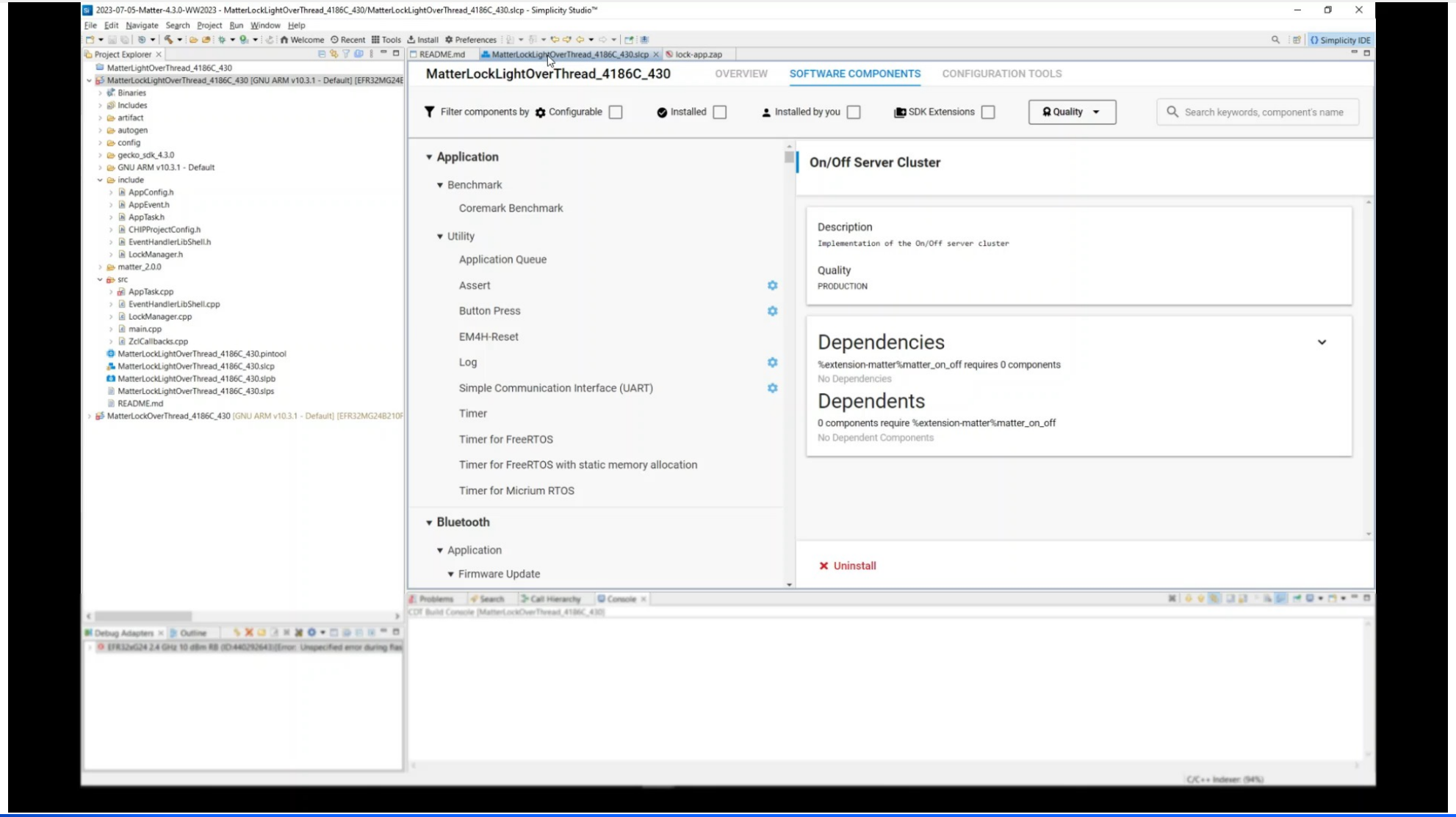
Insert adding an extra endpoint video



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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

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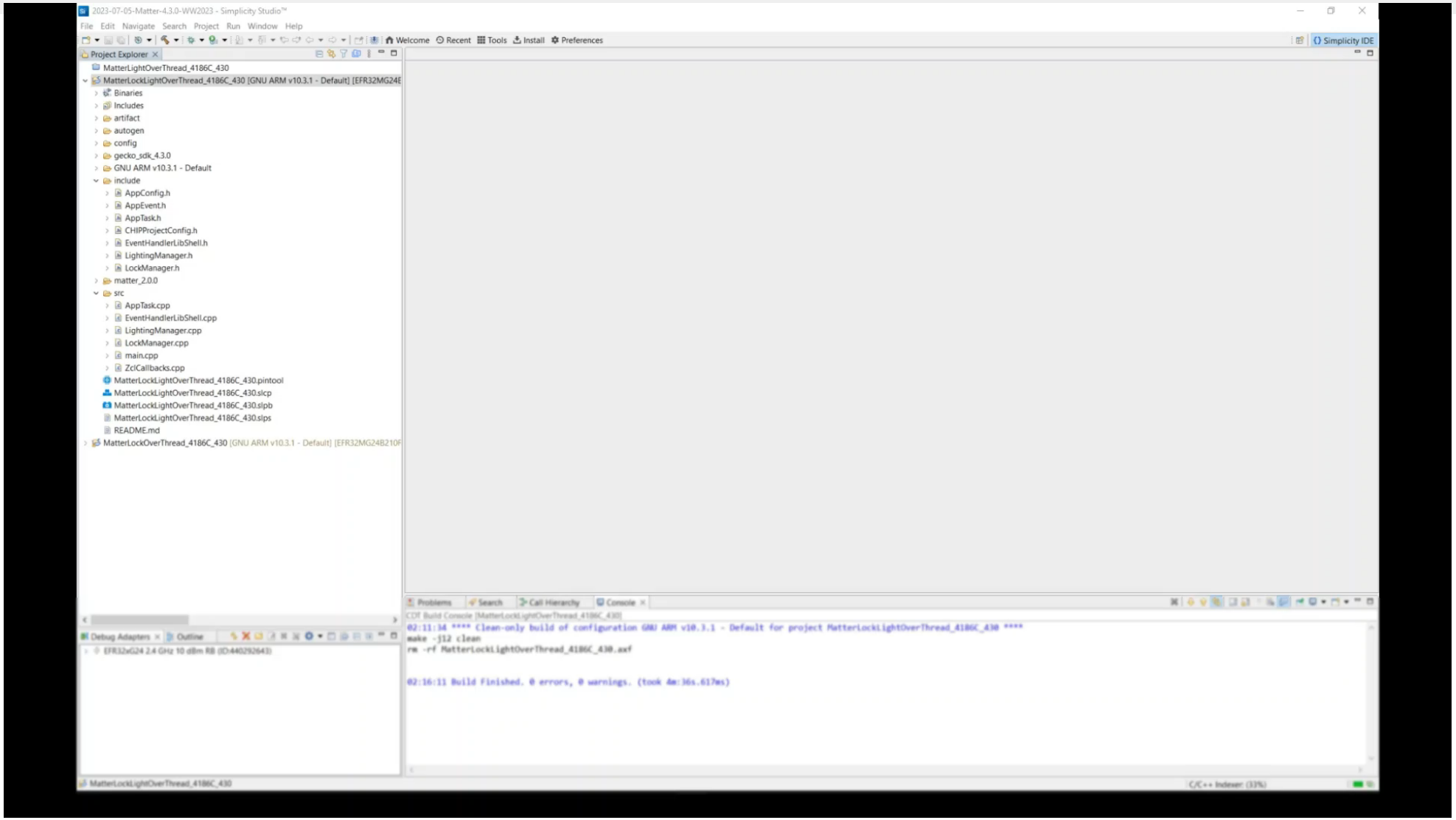
Insert *testing again with our new features* video



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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!