DeepComputing

DC-ROMA RISC-V Mainboard (Early Access Edition) for Framework Laptop 13 EC Firmware Flashing Instructions

Document attributes	
Document version number	V1.0
Latest release date	February 21, 2025
Applicable product model	DC-ROMA RISC-V Mainboard (Early Access Edition) for Framework Laptop 13
Operating system version	Ubuntu 24.04 or Fedora 41
Target audience	DC-ROMA RISC-V Mainboard Early Access Edition Users

Catalogue

Document abstract

This document describes how to use the ST-link to flash and upgrade EC firmware

Required Tools

ST-LINK V2

4 Pin Dupont Female to Female Wire

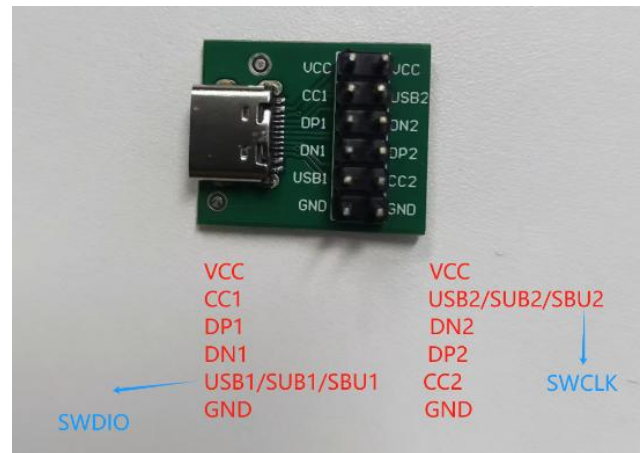Type-C Adapter Board

Multifunctional Type-C Cable

Connection Instructions:

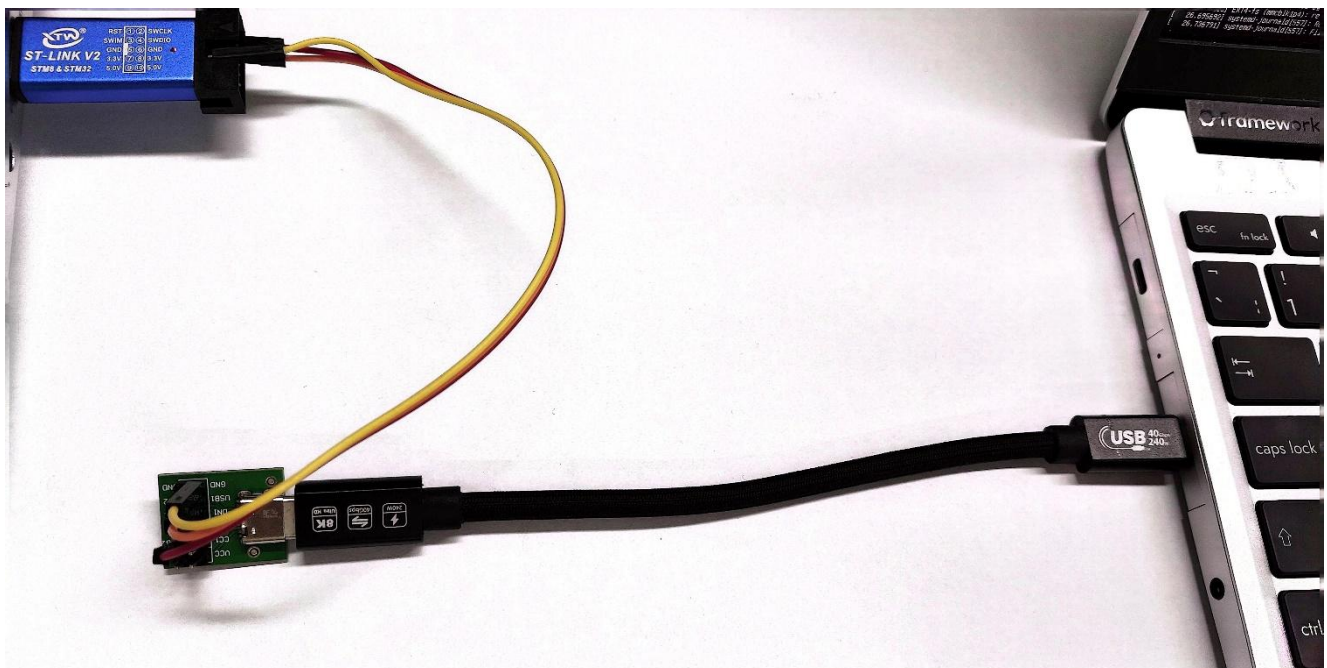Step 1 Connect the ST-LINK (SWDIO, SWCLK, GND) to the Type-C Adapter Board as follows.

Connect SWDIO to USB1/SUB1/SBU1

Connect SWCLK to USB2/SUB2/SBU2

Connect GND to GND

Step 2 Connect the Type-C port on the lower left corner of the Framework Laptop to another Laptop using a Type-C cable.

Step 3 Ensure that the Framework Laptop is powered off and connected to the external power supply.

Attention:
(1) The SWD signal transmitted via the Type-C adapter is directional and does not support Type-C reverse connections.

(2) When the system shuts down, the EC enters hibernation mode, which can cause a ST-Link connection failure. To resolve this, either to force the system to remain active or supply power through an external source.
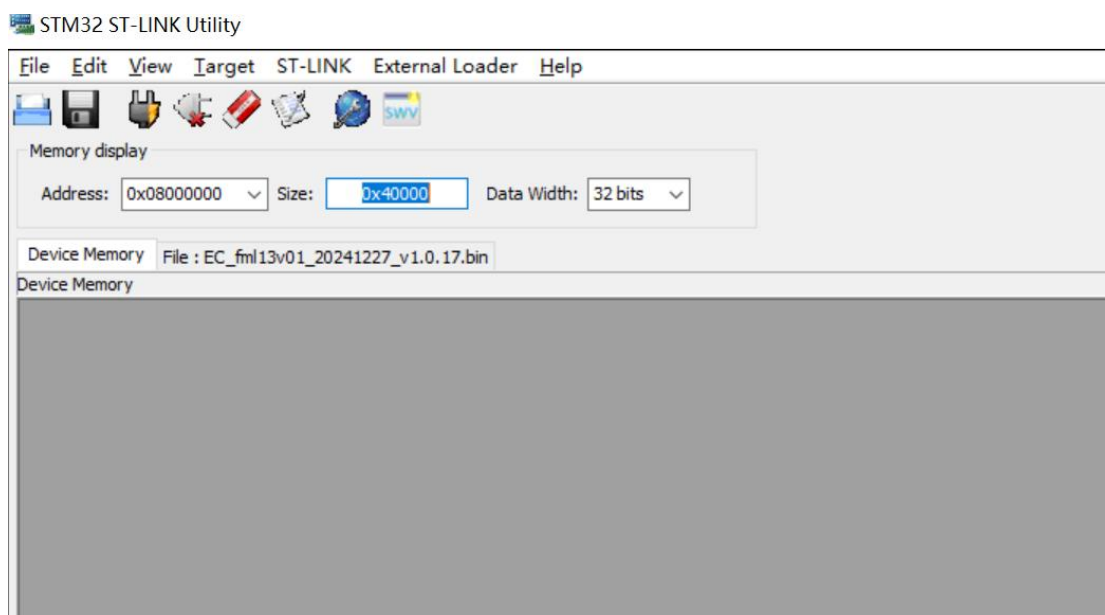
Use the STM32 ST-Link Utility to upgrade the EC using the EC Firmware upgrade package

Step 1 Download the EC upgrade package.

- Website:
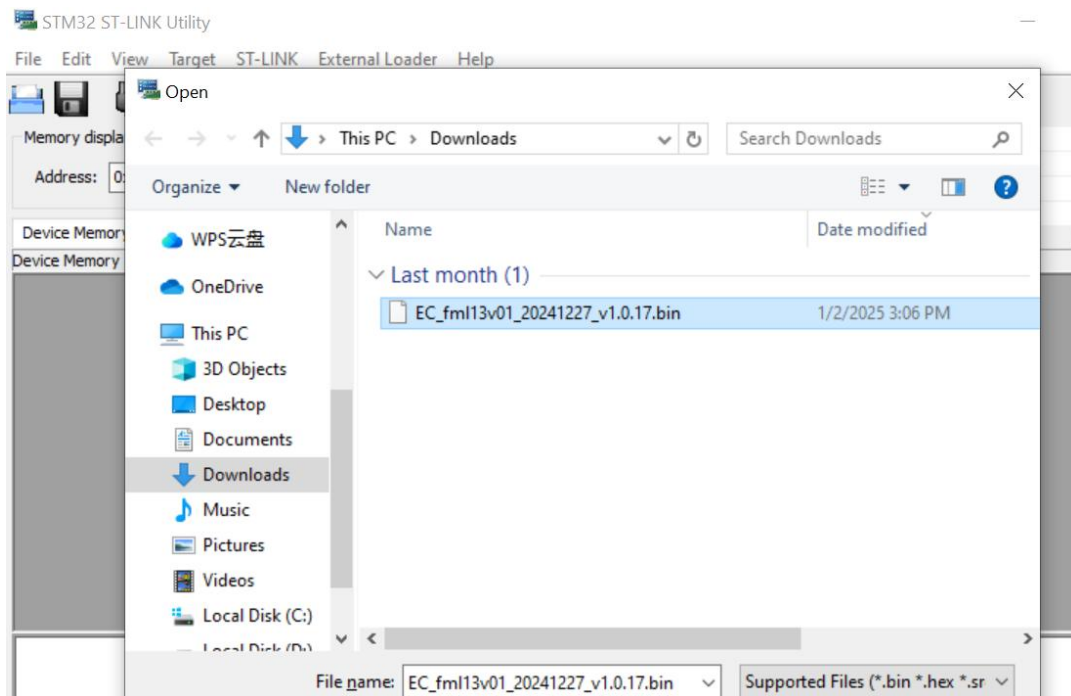   https://deepcomputing.io/support/download/os/EC_fml13v01_20241227_v1.0.17.bin

Step 2 Download and install the STM32 ST-LINK Utility and open it.
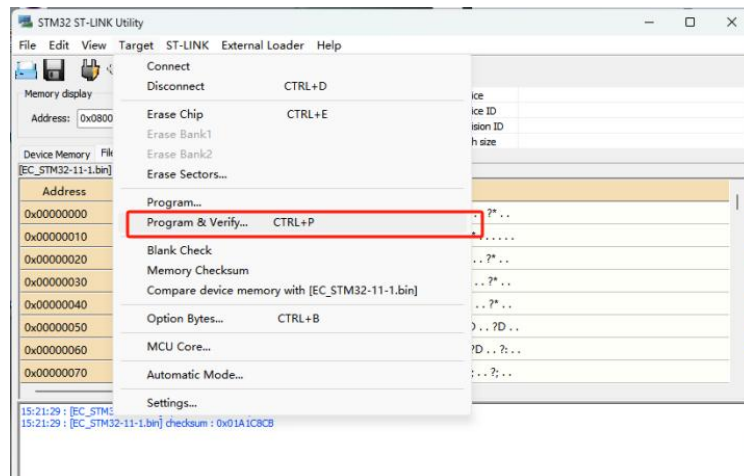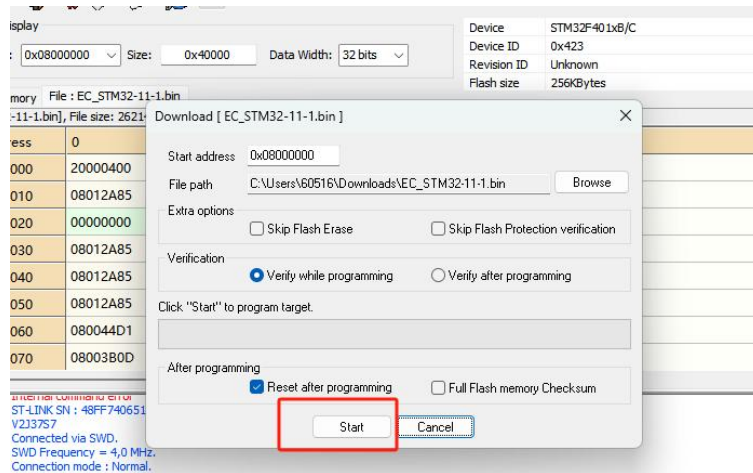
- Website: https://www.st.com/en/development-tools/stsw-link004.html

Step 3 Select the EC Flashing file EC_fml13v01_20241227_v1.0.17.bin.

Step 4 Start Flashing.

Step 5 Flashing complete.