## Write bootloader to MCU memory

Example project expected to work with bootloader (Bootloader implements OTA functionality).
When bootloader used main program write address must be 0x08004000. This value already set in
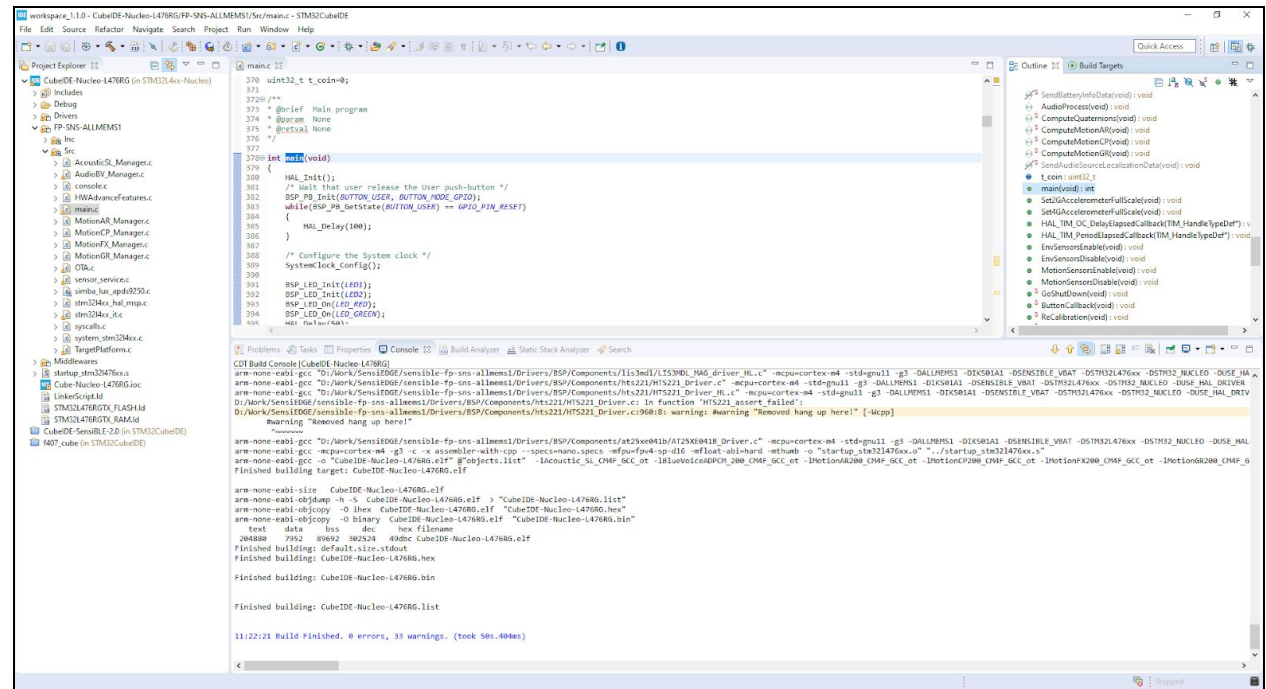LinkerScript.ld file and no changes needed. To restore bootloader
`SensiBLE1.0\Utilities\BootLoader\STM32L476RG\BootLoaderL4.bin` must be written to
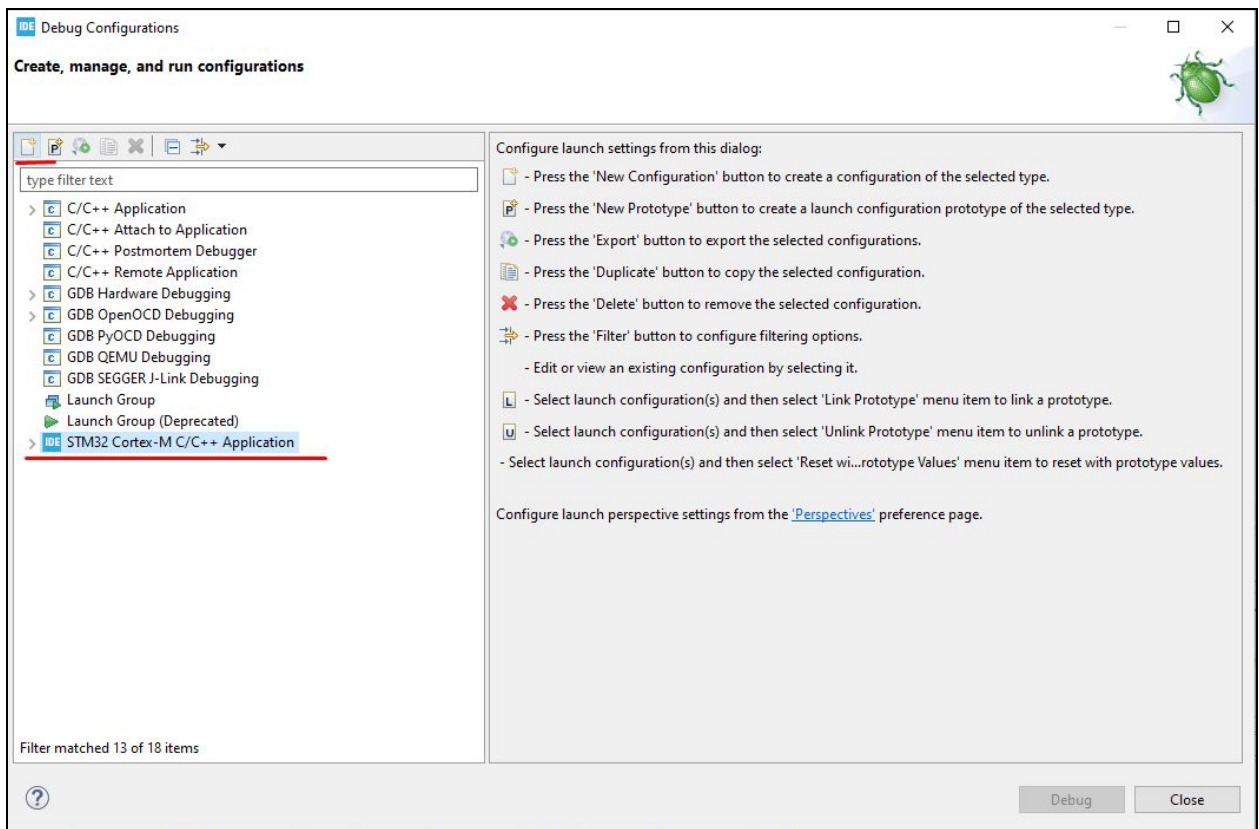MCU. It can be done with file drag to debugger disk in Windows Explorer.
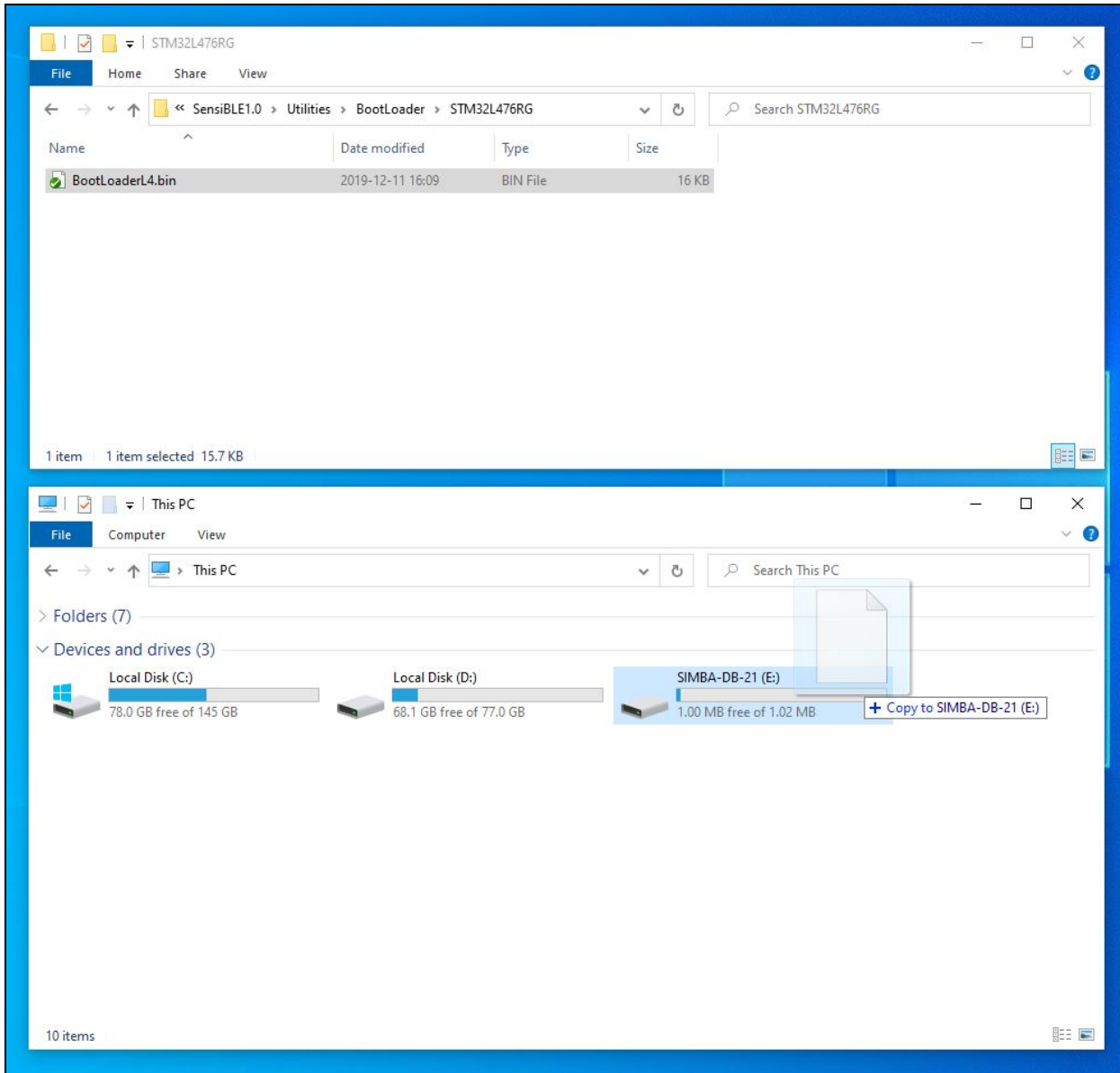
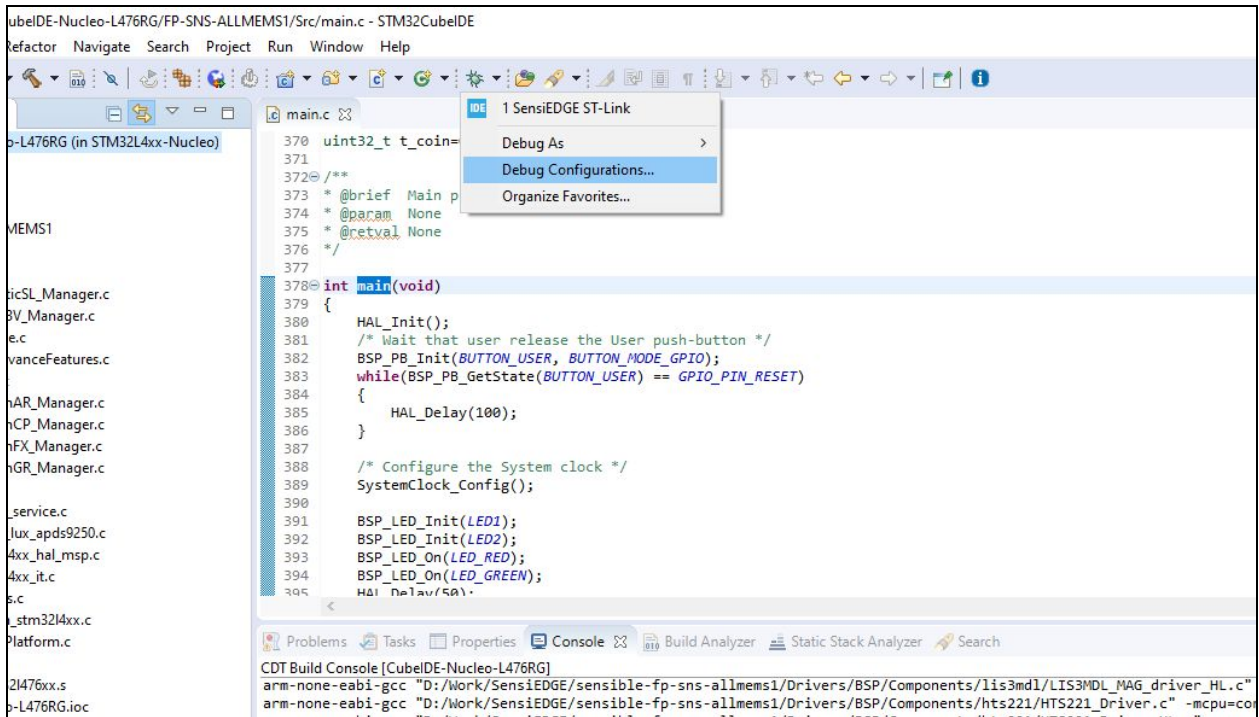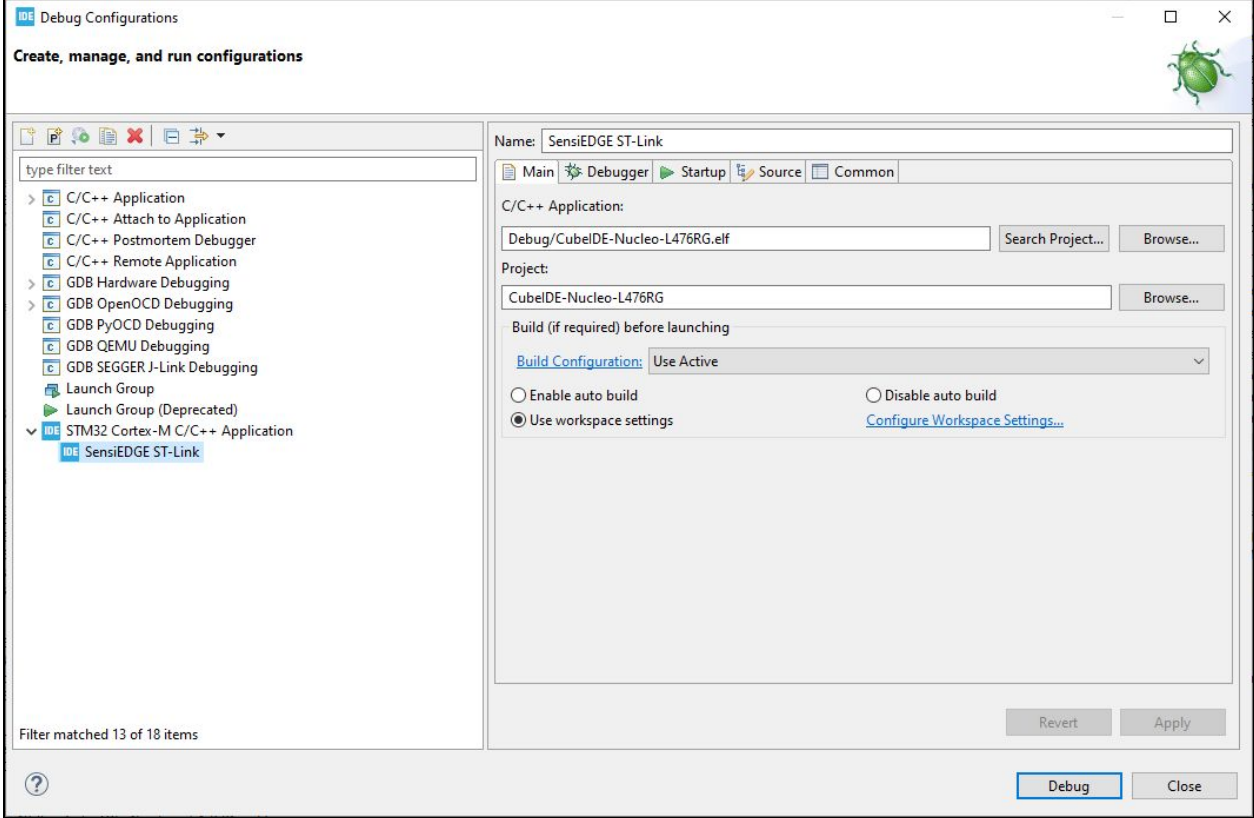## Open project in CubeIDE

Right click on CubeIDE Project Explorer -> Import -> General -> Existing Project into Workspace -> Select
root directory -> Browse
Select path to CubeIDE project folder:

d:\Work\SensiEDGE\SensiBLE1.0\Projects\Multi\Applications\ALLMEMS1\CubeIDE\STM32L476RG-Nucleo\STM32L4xx-Nucleo\

Build project

Project -> Build All (Ctrl-B)
Result of successful build:

Setup debug

Create, manage, and run configurations

Name: SensiEDGE ST-Link

📄 Main ⚙ Debugger ▶ Startup 📝 Source ▦ Common

type filter text

> C C/C++ Application
  C C/C++ Attach to Application
  C C/C++ Postmortem Debugger
  C C/C++ Remote Application
> C GDB Hardware Debugging
> C GDB OpenOCD Debugging
  C GDB PyOCD Debugging
  C GDB QEMU Debugging
  C GDB SEGGER J-Link Debugging
  🔩 Launch Group
  ▶ Launch Group (Deprecated)
∨ IDE STM32 Cortex-M C/C++ Application
    IDE SensiEDGE ST-Link

GDB Connection Settings

◉ Autostart local GDB server   Host name or IP address localhost
○ Connect to remote GDB server Port number 61234

Debug probe ST-LINK (ST-LINK GDB server) ∨

GDB Server Command Line Options

Interface
◉ SWD   ○ JTAG   ☐ Use specific ST-LINK S/N [_____] ∨ Scan

Access port: [0 - Cortex-M4 ∨]

Reset behaviour
Type: [Software system reset ∨]   ☐ Halt all cores

Serial Wire Viewer (SWV)
☐ Enable
  Clock Settings
  Core Clock: 16.0   MHz
  SWO Clock: 2000   ∨   kHz

  Port number: 61235
  ☑ Wait for sync packet

Misc
☑ Verify flash download
☑ Enable live expressions
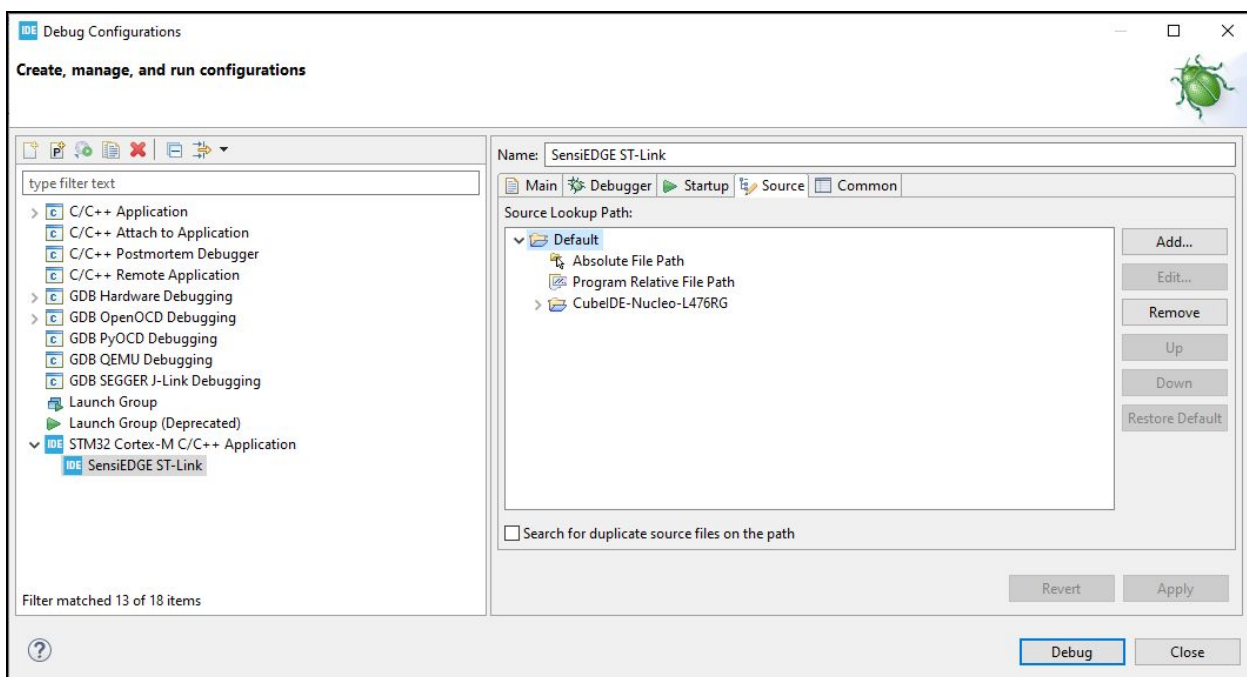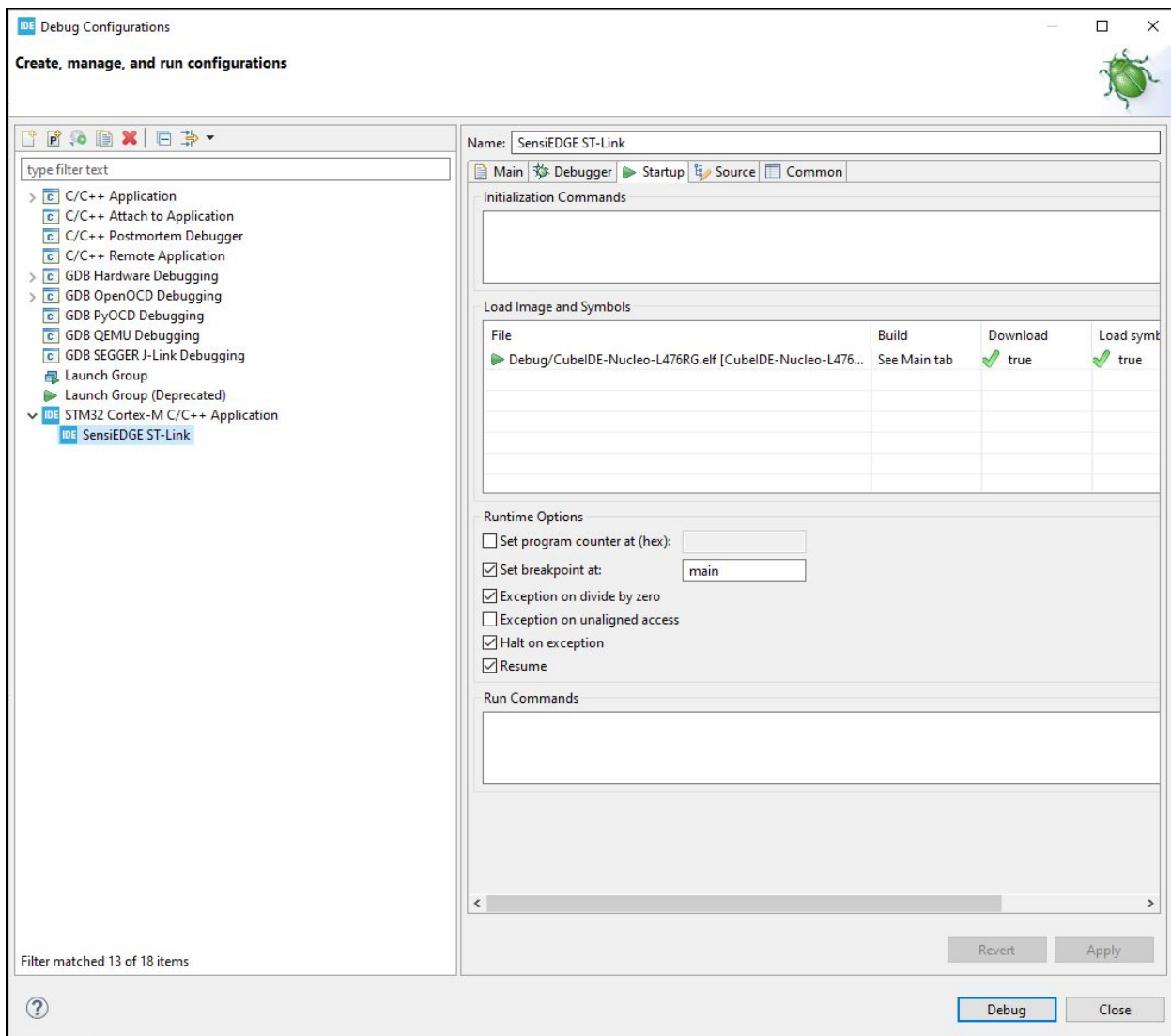☐ Log to file: [_____] Browse...
☐ External Loader: [_____] ∨ Scan
☐ Enable shared ST-LINK

Filter matched 13 of 18 items

Revert   Apply

?   Debug   Close

Debug Configurations — Create, manage, and run configurations

Name: SensiEDGE ST-Link

Tabs: Main | Debugger | Startup | Source | Common

Initialization Commands

Load Image and Symbols

File	Build	Download	Load symb
▶ Debug/CubeIDE-Nucleo-L476RG.elf [CubeIDE-Nucleo-L476...	See Main tab	✓ true	✓ true

Runtime Options

- ☐ Set program counter at (hex):
- ☑ Set breakpoint at: main
- ☑ Exception on divide by zero
- ☐ Exception on unaligned access
- ☑ Halt on exception
- ☑ Resume

Run Commands

Filter matched 13 of 18 items

Revert | Apply

Debug | Close

Debug Configurations — Create, manage, and run configurations

Name: SensiEDGE ST-Link

Tabs: Main | Debugger | Startup | Source | Common

Source Lookup Path:

- ▼ 📁 Default
  - 🔧 Absolute File Path
  - 📝 Program Relative File Path
  - ▶ 📁 CubeIDE-Nucleo-L476RG

Buttons: Add... | Edit... | Remove | Up | Down | Restore Default

☐ Search for duplicate source files on the path
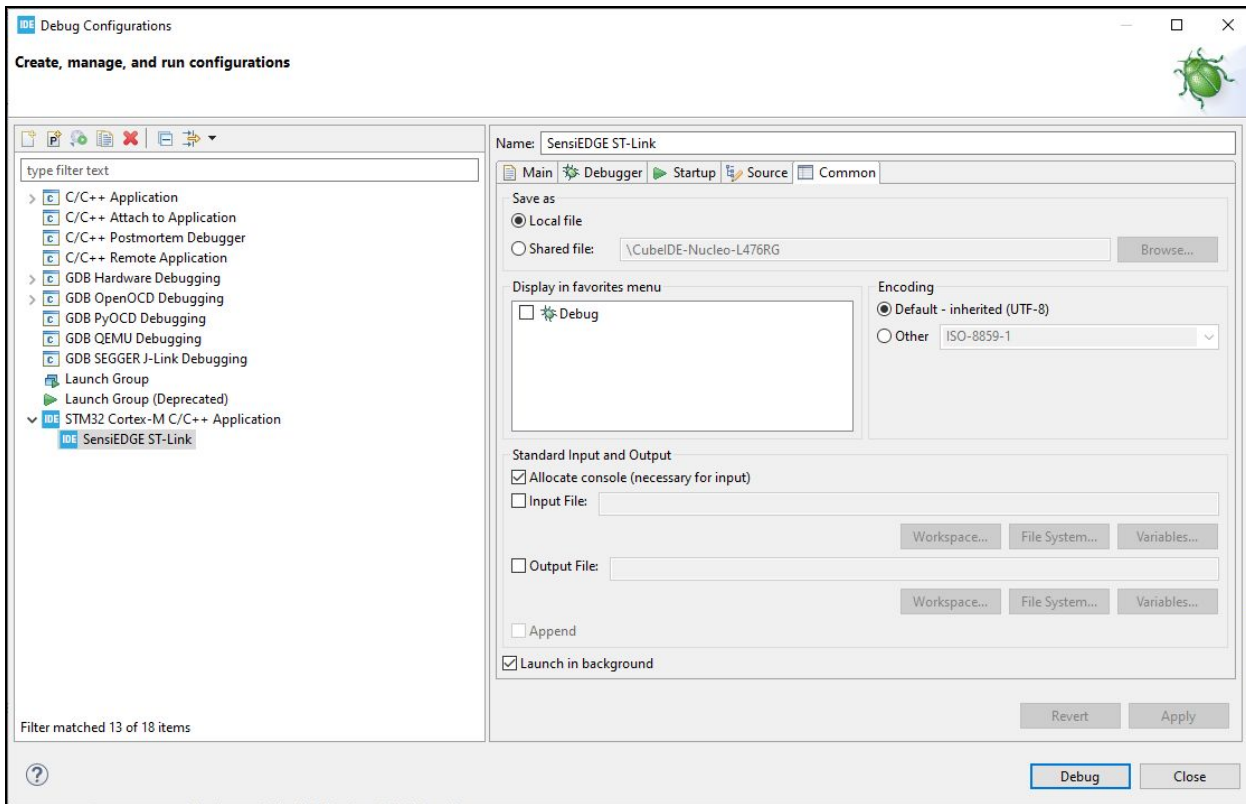
Filter matched 13 of 18 items
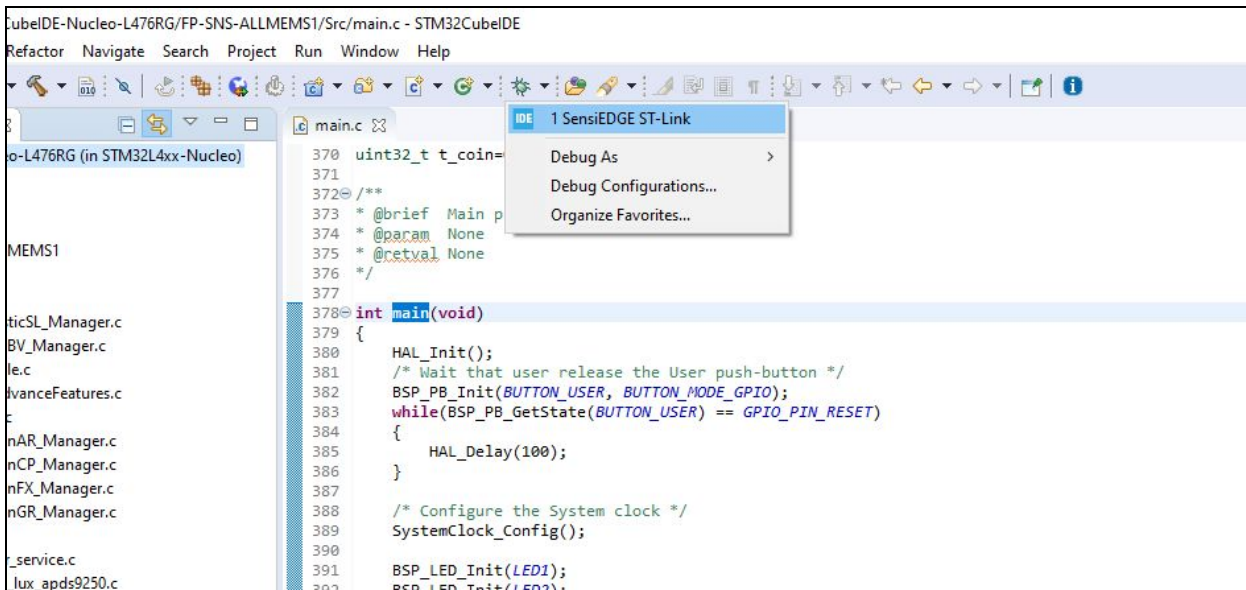
Revert | Apply

Debug | Close

Run debug

Press Debug button on Debug Configuration Window or select configuration from Debug button on toolbar

Successful debug start: