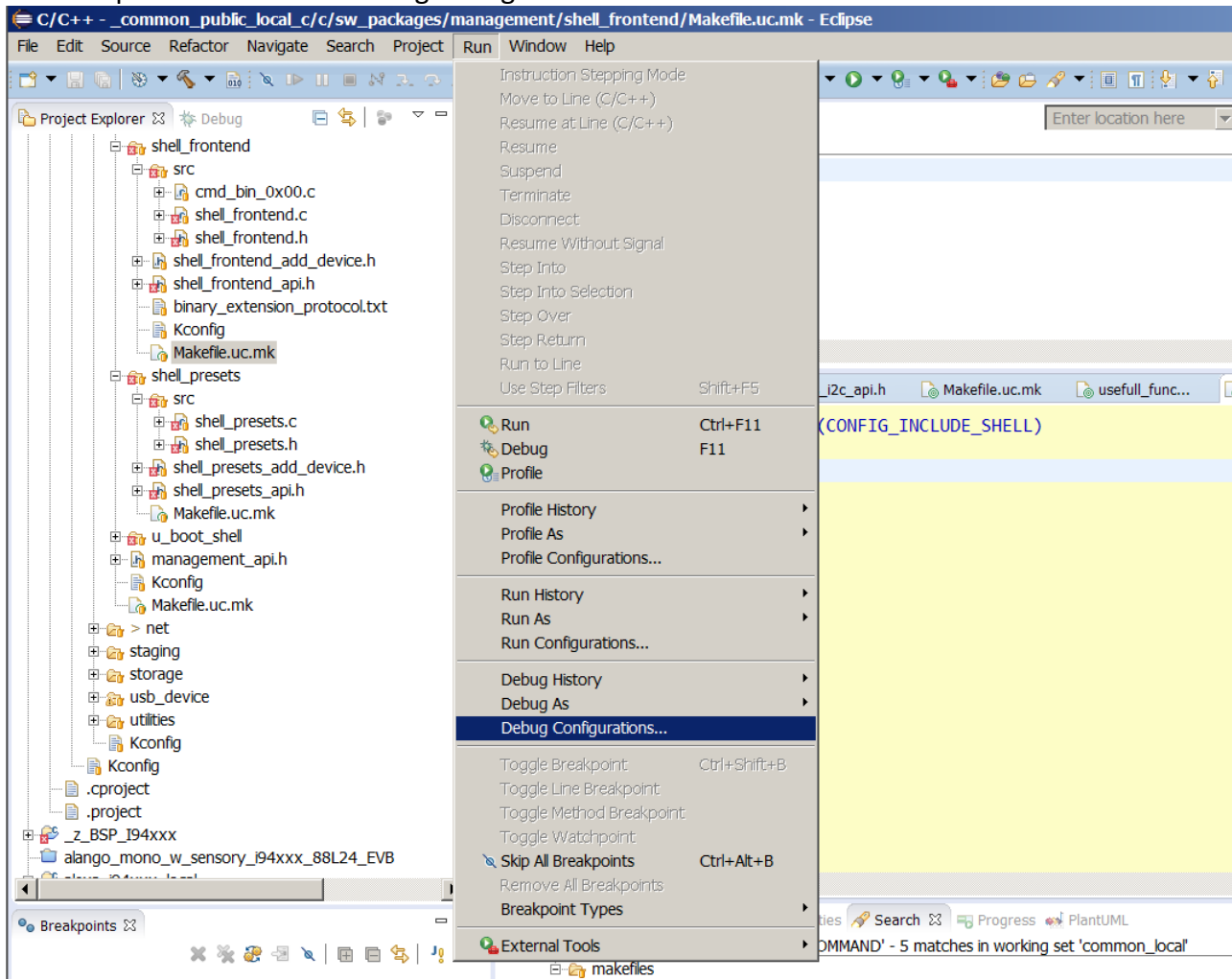
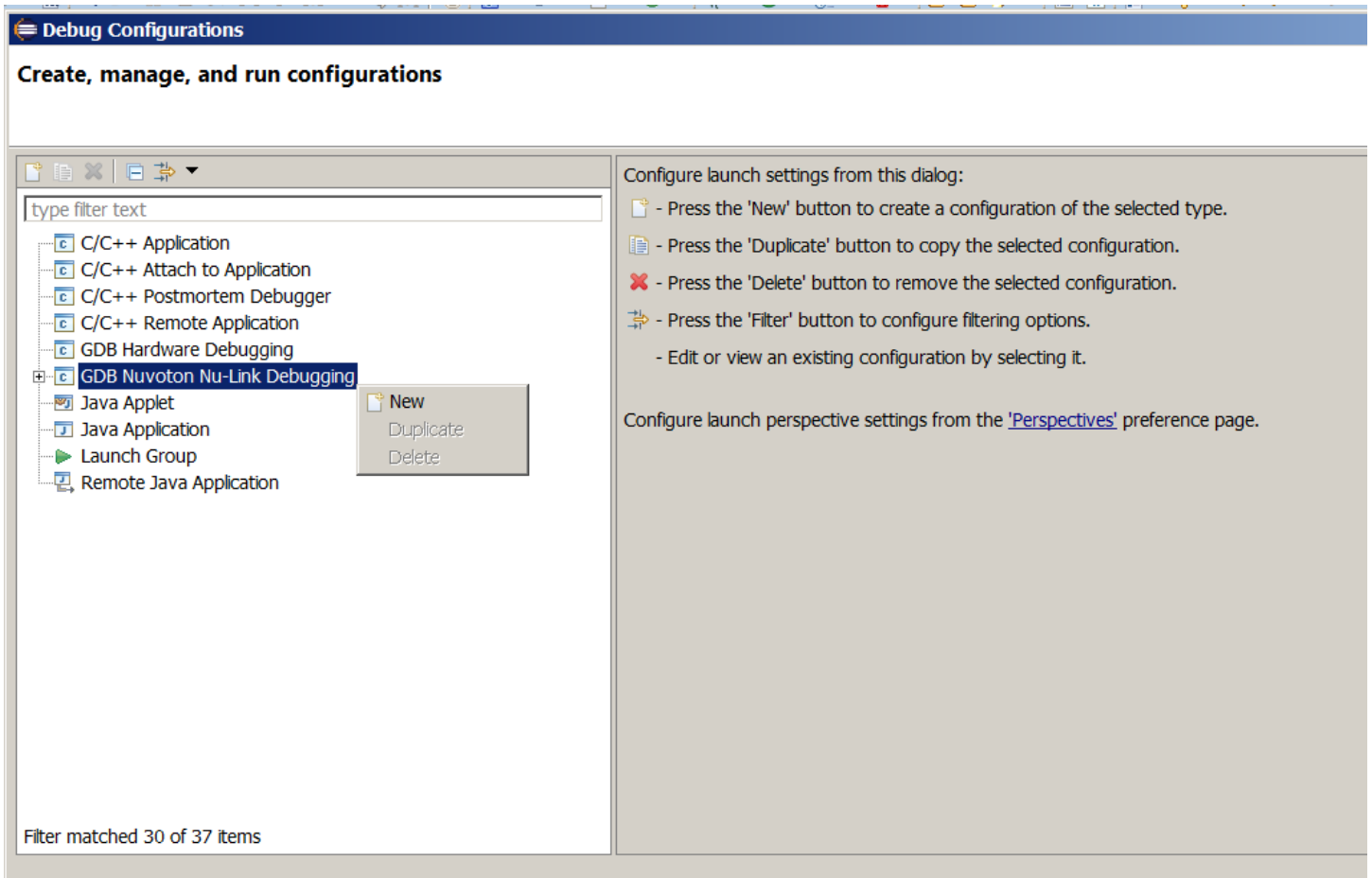


A. Creating debug configuration in NuEclipse.

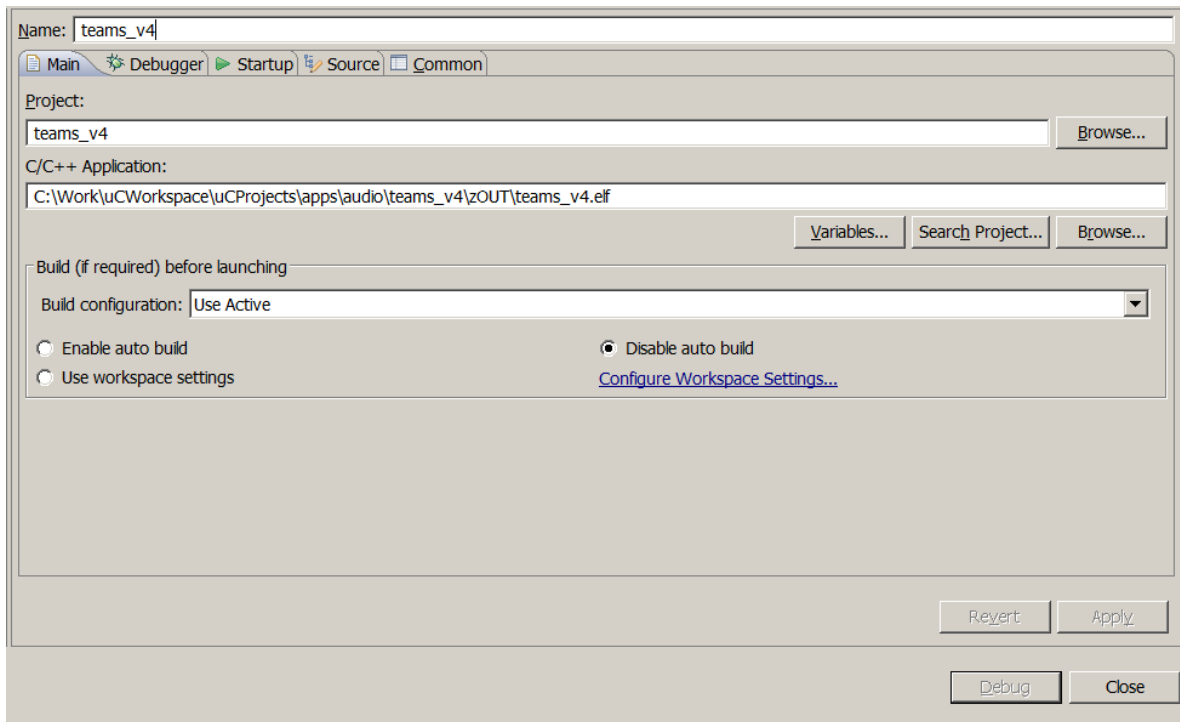
1. Go to Eclipse menu->Run->"Debug Configuration"



2. Right click on “GDB Nuvoton Nu-Link Debugging” and select ‘New’.



3. Main tab:



- i. Select some name for configuration.
- ii. In 'Project field press 'Browse...'' and select the project you want to debug.
- iii. In "C/C++ Application" put path to the output .elf file of you compilation. Usually the output located in \$(YOUR_APP)/zOUT/ folder.

4. Debugger tab:

The screenshot shows the Eclipse IDE's 'Debugger' tab configuration window. At the top, the 'Name' field is set to 'teams_v4'. Below this are tabs for 'Main', 'Debugger' (selected), 'Startup', 'Source', and 'Common'. The 'OpenOCD Setup' section includes a checked 'Start OpenOCD locally' checkbox. The 'Executable' field contains the path 'C:\Work\NuEclipse\V1.01.014\NuEclipse\ eclipse\OpenOCD\bin/\${openocd_nulink_executable}', with 'Browse...' and 'Variables...' buttons to its right. The 'GDB port' is set to '3333' and the 'Telnet port' to '4444'. The 'Config options' text area contains '-f ../scripts/interface/nulink.cfg -f ../scripts/target/numicroM4.cfg'. There are checkboxes for 'Allocate console for OpenOCD' (checked) and 'Allocate console for the telnet connection' (unchecked). The 'GDB Client Setup' section has the 'Executable' set to 'C:\work\uCWorkspace\tools\windows\gcc\arm-none-eabi-4.9.3\bin\arm-none-eabi-gdb.exe', with 'Browse...' and 'Variables...' buttons. The 'Other options' field is empty, and the 'Commands' text area contains 'set mem inaccessible-by-default off'. The 'Remote Target' section shows 'Host name or IP address' as 'localhost' and 'Port number' as '3333'. A 'Force thread list update on suspend' checkbox is unchecked. A 'Restore defaults' link is at the bottom right of this section. At the very bottom of the window are 'Revert', 'Apply', 'Debug', and 'Close' buttons.

- i. Select 'Start OpenOCD Locally'
- ii. In OpenOCD 'Executable:' make sure that path points to openocd.exe executable.
Note: some time you want to use special version of openocd.exe, for example if you want openocd for 1.8v with name openocd_1v8.exe then make sure to put this executable with its path into this field.
- iii. GDB port : 3333
- iv. Telnet port: 4444
- v. Config options:
select proper configuration based on your target SOC:
M4 : -f ../scripts/interface/nulink.cfg -f ../scripts/target/numicroM4.cfg
M0 : -f ../scripts/interface/nulink.cfg -f ../scripts/target/numicroM0.cfg
- vi. In GDB Client Setup
 - a. Executable: **IMPORTANT!** You have to select gdb from compiler package that you used to compile the project.
 - b. Commands: set mem inaccessible-by-default off

5. Startup tab

Name:

☒ Initial Reset Type:

☐ Enable ARM semihosting

☐ Erase chip

Chip Series:

☐ Write Config0: 0x Config1: 0x Config2: 0x Config3: 0x

Load Symbols and Executable

☒ Load symbols

☒ Use project binary:

☐ Use file:

Symbols offset (hex):

☐ Load executable to flash

☒ Use project binary:

☒ Use file:

Executable offset (hex):

☐ Load executable to SRAM

☒ Use project binary:

☐ Use file:

Executable offset (hex):

Run/Restart Commands

☐ Pre-run/Restart reset Type: (always executed at Restart)

☐ Set program counter at (hex):

☒ Set breakpoint at:

☒ Continue

- i. in Chip series:
 - For M4 – select NuMicro M4
 - For M0 – select NuMicro M0
- ii. Check 'Load Symbols and Executable' and select 'Use project binary. ...'
- iii. Un-check 'Load executable to flash'
- iv. Un-check 'Load executable to SRAM'