

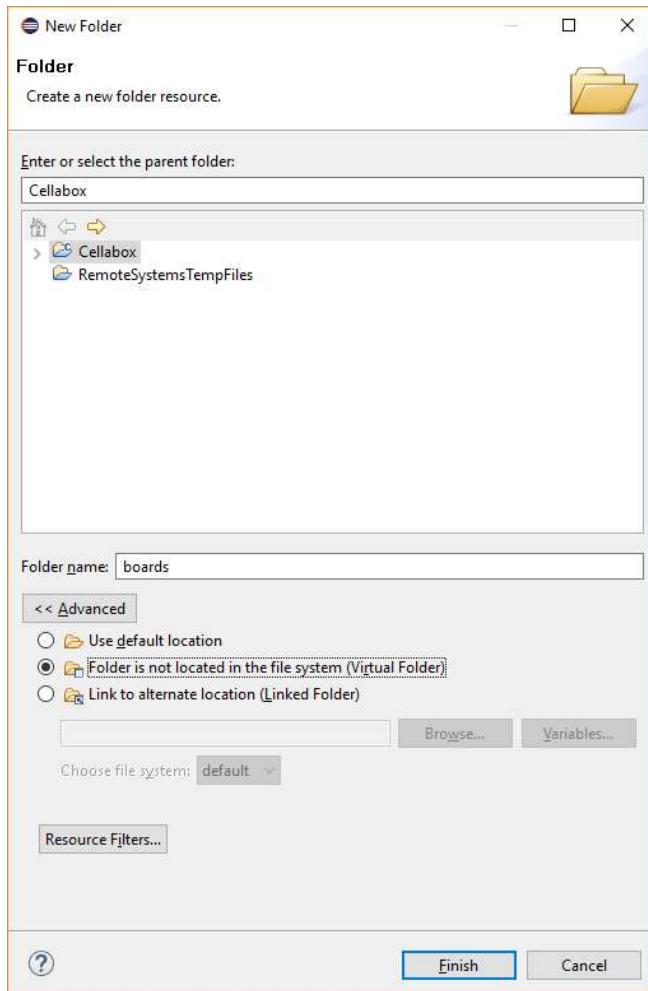
1. Install Eclipse for Nordic nRF52

Follow these points to install Eclipse for Nordic nRF52

- Nordic tutorial: <https://devzone.nordicsemi.com/tutorials/7/>
- ARM for eclipse tutorial: <http://gnuarmedeclipse.github.io/plugins/install/>

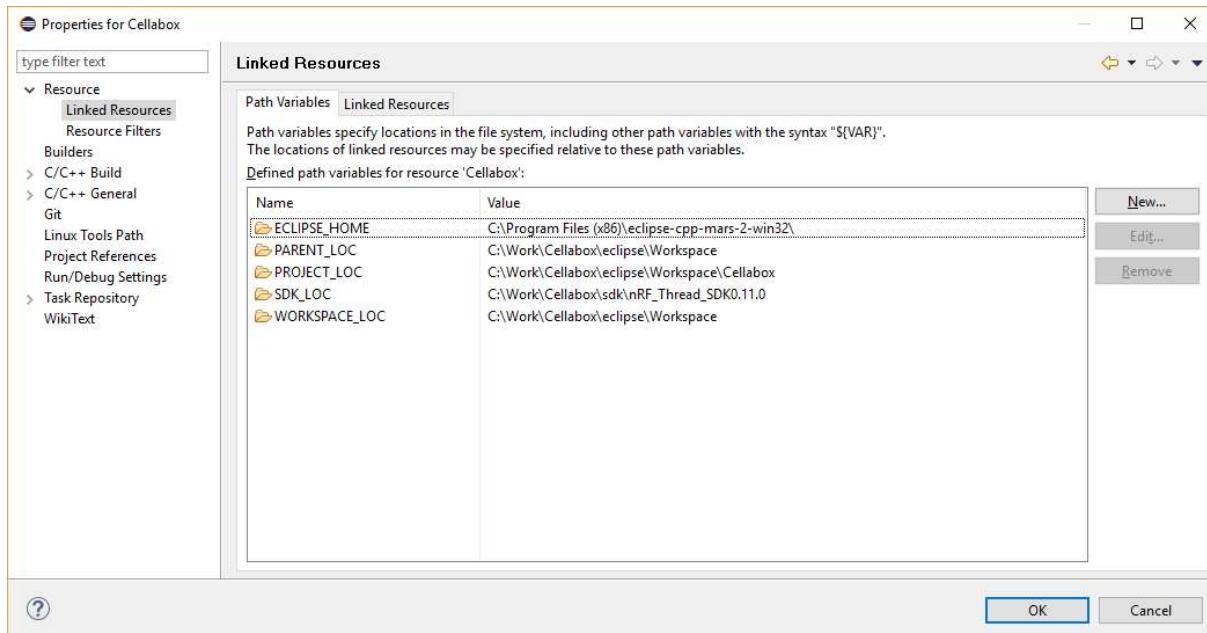
2. Add Folders

Add new «virtual» folders to your Eclipse file structure



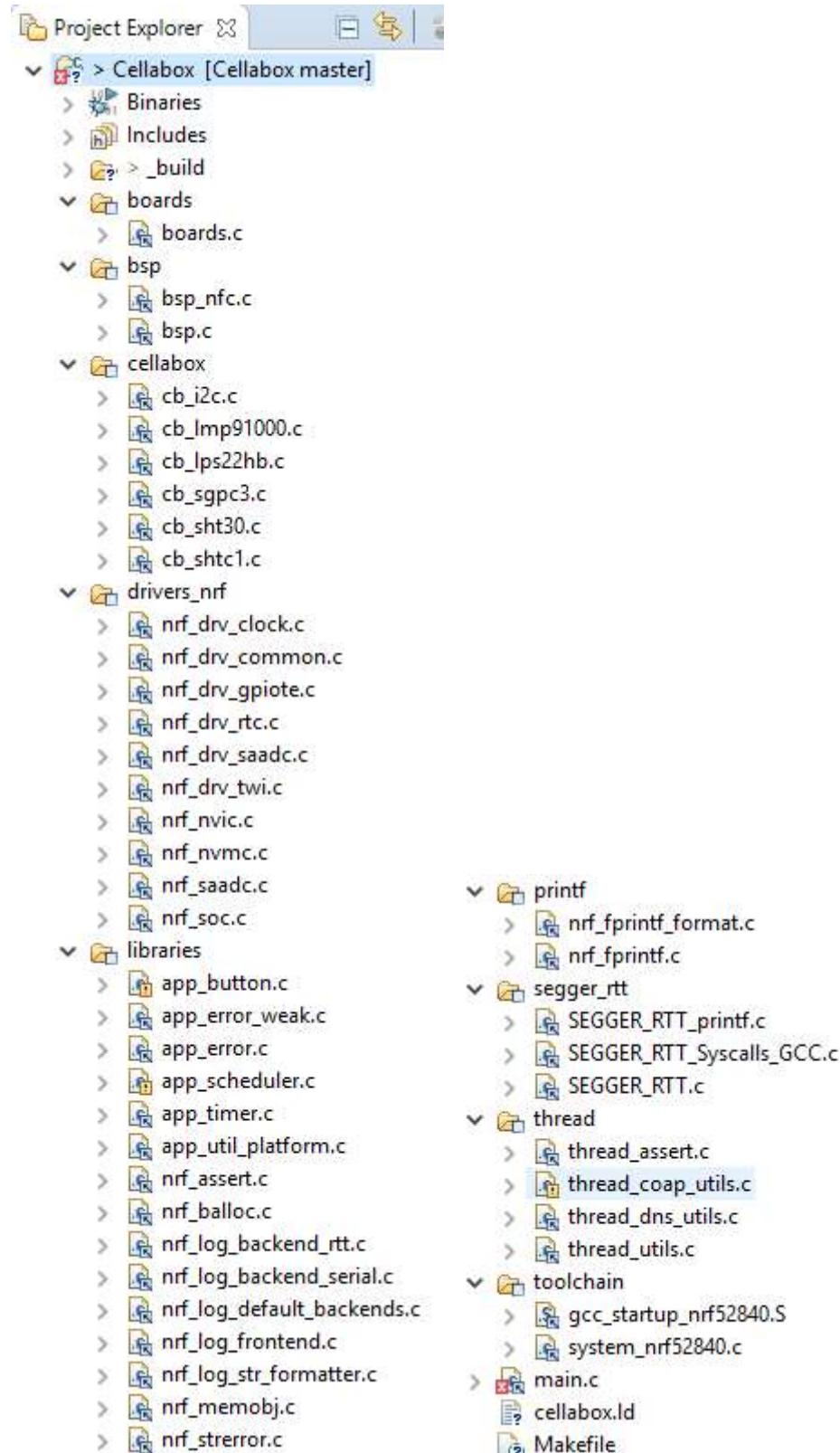
3. Path variables

Set SDK_LOC to the specific SDK you want to use.

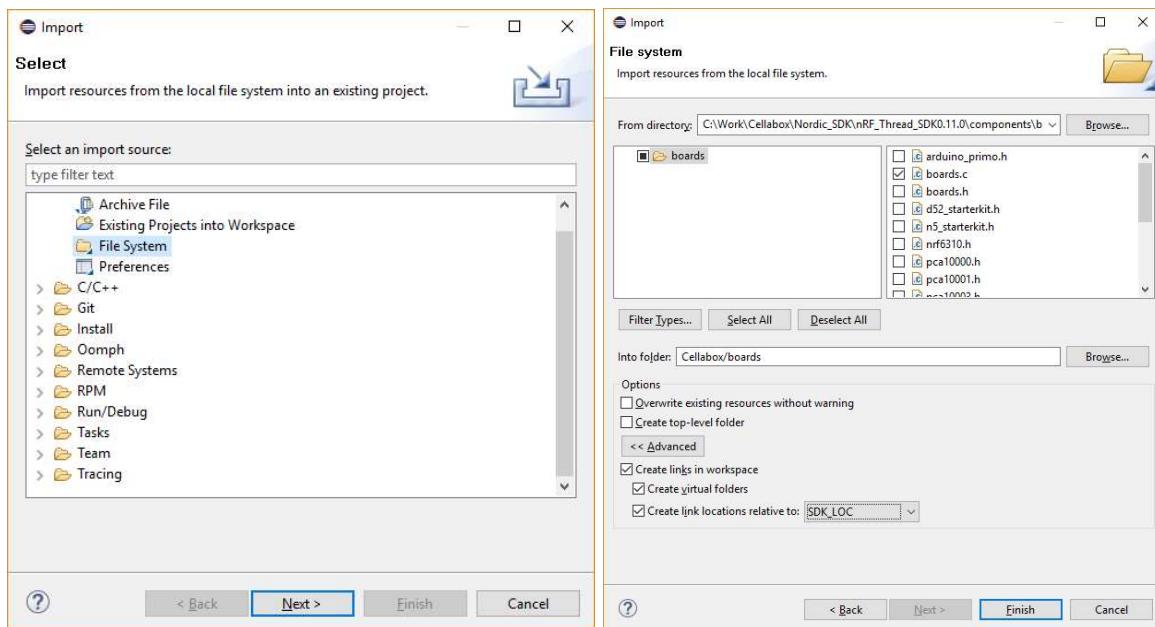


4. Add new source files

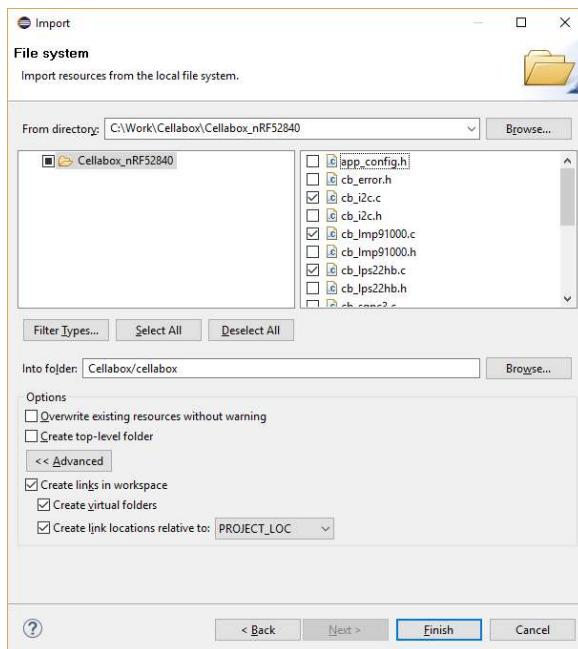
Eclipse file structure



SDK files (/sdk)



Cellabox source files (/src)



5. Source files from SDK

When updating the SDK, copy source files from SDK example: cloud_coap_client to Cellabox source folder “src” and modify them.

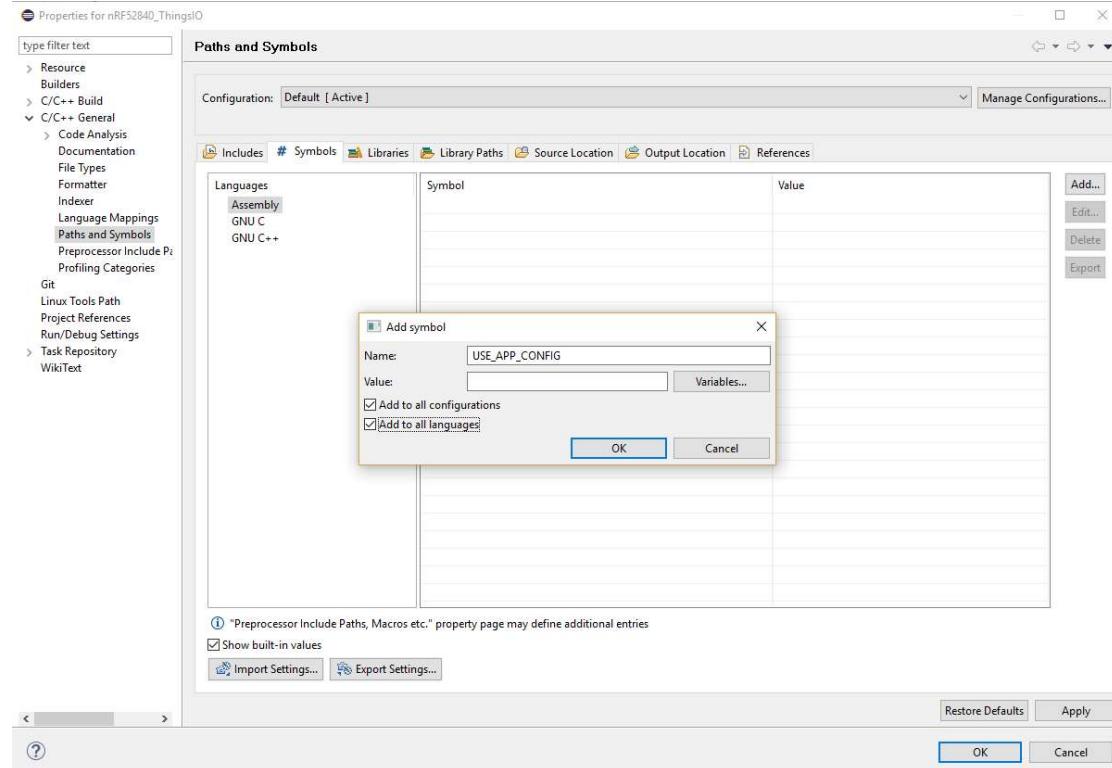
- sdk_config.h
- thread_coap_utils.c
- thread_coap_utils.h

Navigator (C:) > Work > Cellabox > src		
Name	Änderungsdatum	Typ
cb_shtc1.c	19.01.2018 12:22	C-Datei
cb_shtc1.h	26.10.2017 06:25	H-Datei
main.c	19.01.2018 12:23	C-Datei
sdk_config.h	25.11.2017 07:38	H-Datei
thread_coap_utils.c	16.12.2017 15:44	C-Datei
thread_coap_utils.h	16.12.2017 15:35	H-Datei

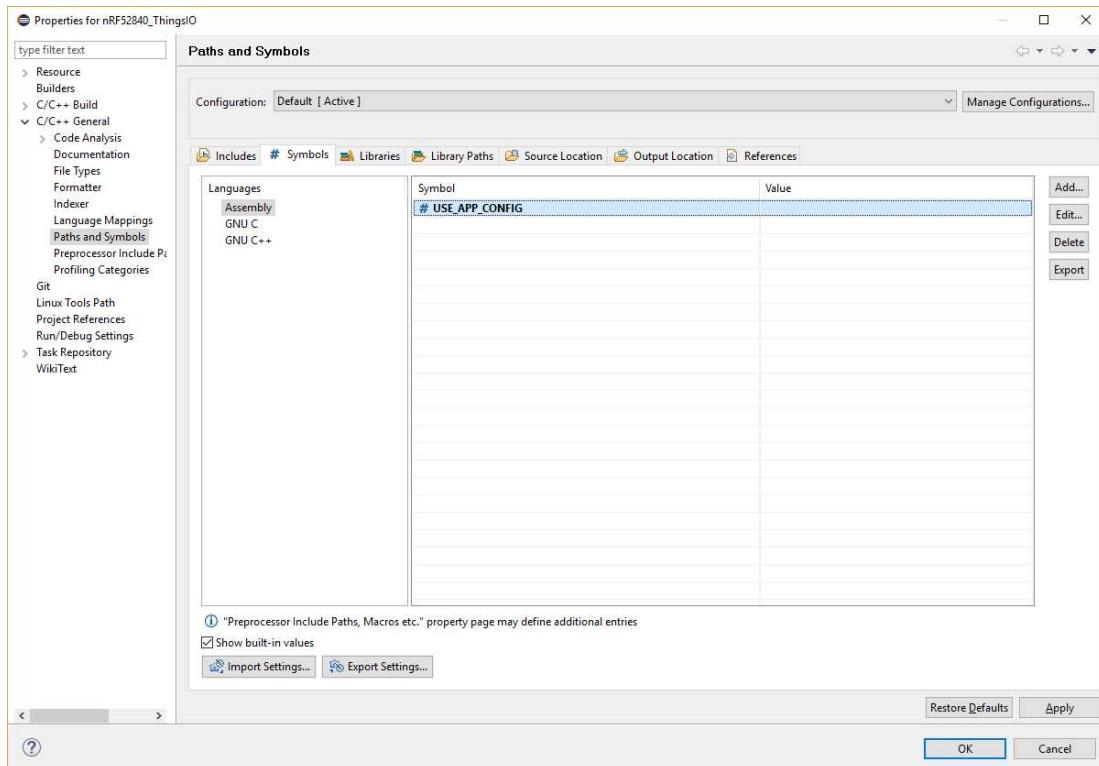
6. Eclipse Properties

USE_APP_CONFIG

Define USE_APP_CONFIG to get HW resources like TWI, SAADC, RTC0 etc. running.



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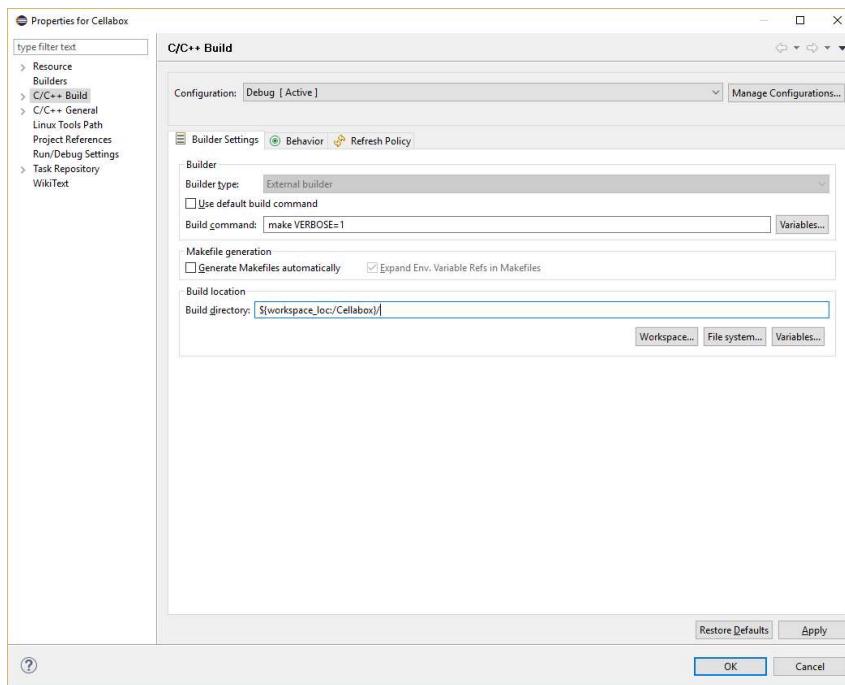


```

main.c      Makefile    nrf_log_ctrl.h  app_timer.c  sdk_config.h
2 * Copyright (c) 2017 - 2017, Nordic Semiconductor ASA
40
41
42
43 #ifndef SDK_CONFIG_H
44 #define SDK_CONFIG_H
45 // <<< Use Configuration Wizard in Context Menu >>>\n
46 #ifdef USE_APP_CONFIG
47 #include "app_config.h"
48 #endif
49 // <h> nRF_Drivers

```

make



7. Makefile

Makefile path on disk

Navigator (C:) > Work > Cellabox > eclipse > Workspace > Cellabox		
Name	Änderungsdatum	Typ
.settings	19.01.2018 10:55	Dateiordner
_build	19.01.2018 12:23	Dateiordner
.cproject	19.01.2018 10:47	CPROJECT-Datei
.project	19.01.2018 12:21	PROJECT-Datei
cellabox.id	20.11.2017 08:23	LD-Datei
Makefile	19.01.2018 12:13	Datei

SDK_ROOT (SDK files)

```
Makefile

1 PROJECT_NAME      := cellabox_pca10056
2 TARGETS           := nrf52840_xxaa_cellabox
3 OUTPUT_DIRECTORY  := _build
4
5 SDK_ROOT        := ../../../../../../nRF_Thread_SDK0.11
6 PROJ_DIR          := .
7 SRC_DIR           := ../../../../src
8
9 $(OUTPUT_DIRECTORY)/nrf52840_xxaa_cellabox.out: \
10   LINKER_SCRIPT   := $(PROJ_DIR)/cellabox.ld
11
12 # Source files common to all targets
13 SRC_FILES += \
14   $(SDK_ROOT)/components/libraries/experimental_log/src/nrf_log_backend_rtt.c \
15   $(SDK_ROOT)/components/libraries/experimental_log/src/nrf_log_backend_serial.c \
16   $(SDK_ROOT)/components/libraries/experimental_log/src/nrf_log_default_backends.c \
17   $(SDK_ROOT)/components/libraries/experimental_log/src/nrf_log_frontend.c \
18   $(SDK_ROOT)/components/libraries/experimental_log/src/nrf_log_str_formatter.c \
19   $(SDK_ROOT)/components/libraries/boards/boards.c \
20   $(SDK_ROOT)/components/libraries/boards/boards.h
```

SRC_DIR (Cellabox source files)

```
$ ${SDK_ROOT}/components/drivers_nrf/saadc/nrf_drv_saadc.c \
$ ${SDK_ROOT}/components/drivers_nrf/hal/nrf_saadc.c \
$ ${SRC_DIR}/cb_i2c.c \
$ ${SRC_DIR}/cb_sht1.c \
$ ${SRC_DIR}/cb_lps22hb.c \
$ ${SRC_DIR}/cb_sgpc3.c \
$ ${SRC_DIR}/cb_sht30.c \
$ ${SRC_DIR}/cb_lmp91000.c \
```

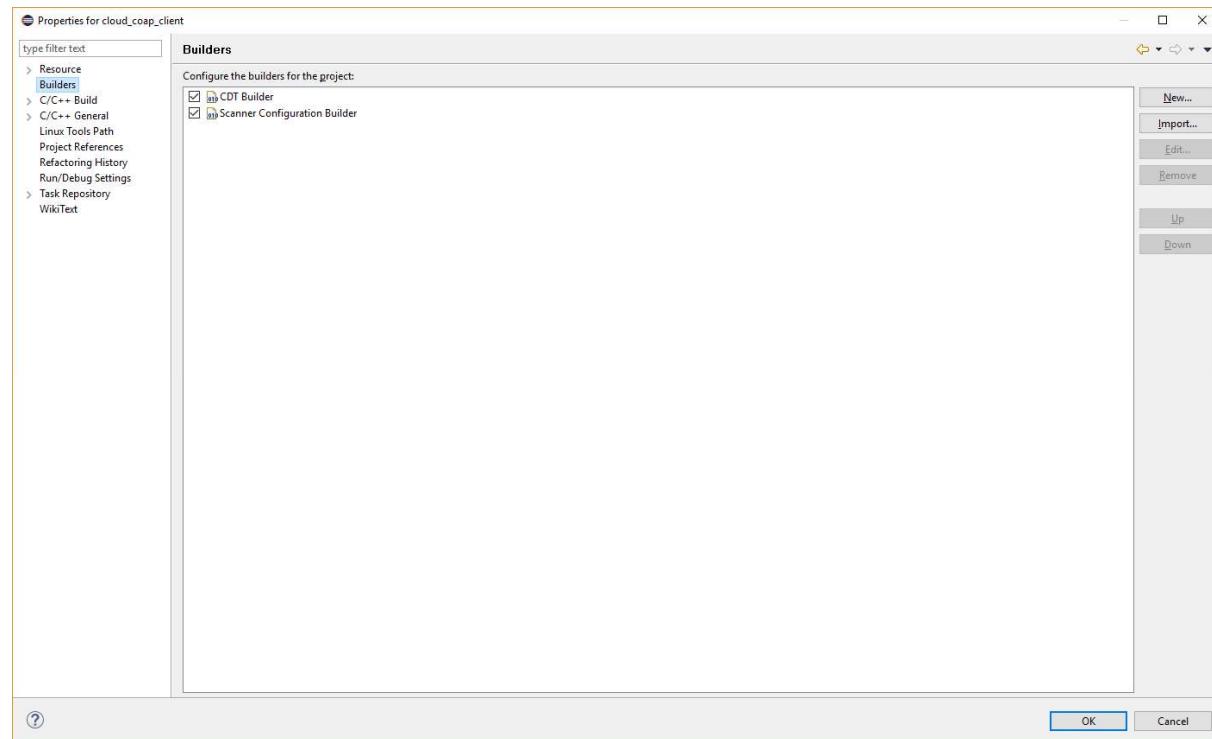
8. Linker script

Cellabox (C:)\Work\Cellabox\workspace\Cellabox		
Name	Änderungsdatum	Typ
.settings	19.01.2018 10:55	Dateiordner
_build	19.01.2018 12:23	Dateiordner
.cproject	19.01.2018 10:47	CPROJECT-Datei
.project	19.01.2018 12:21	PROJECT-Datei
cellabox.ld	20.11.2017 08:23	LD-Datei
Makefile	19.01.2018 12:13	Datei

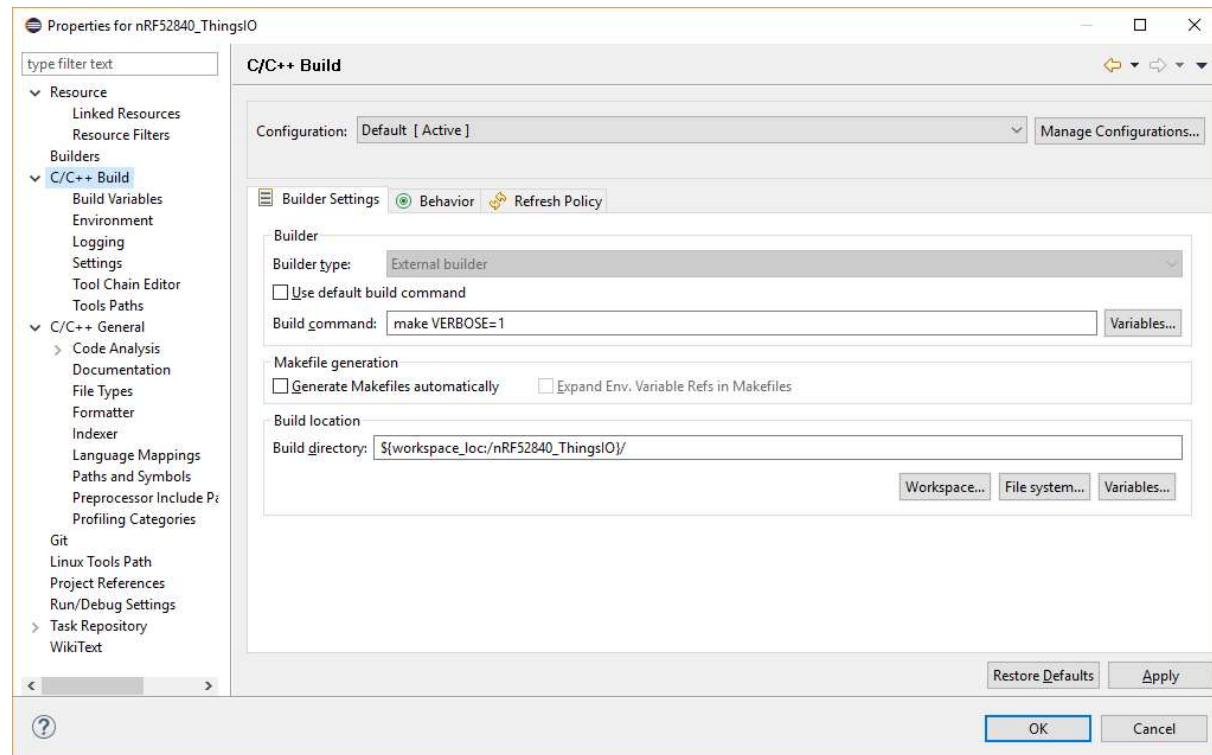
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9. Project properties

Builders



C/C++ Build



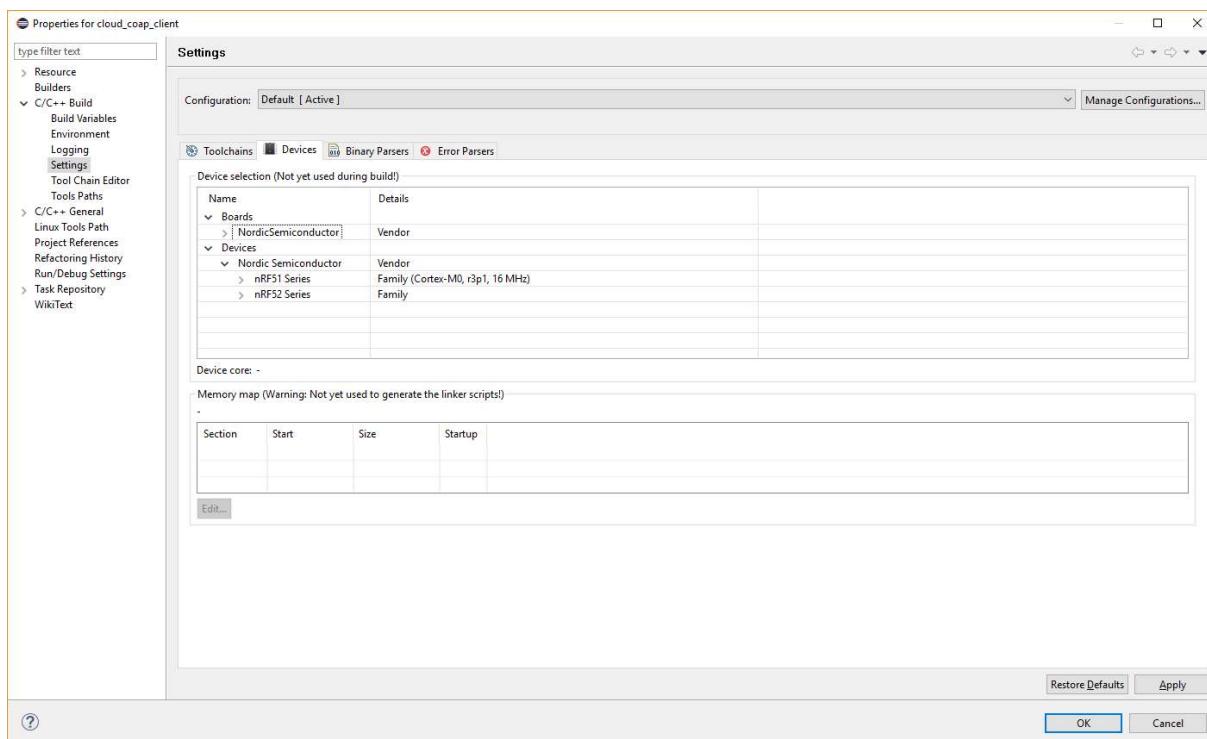
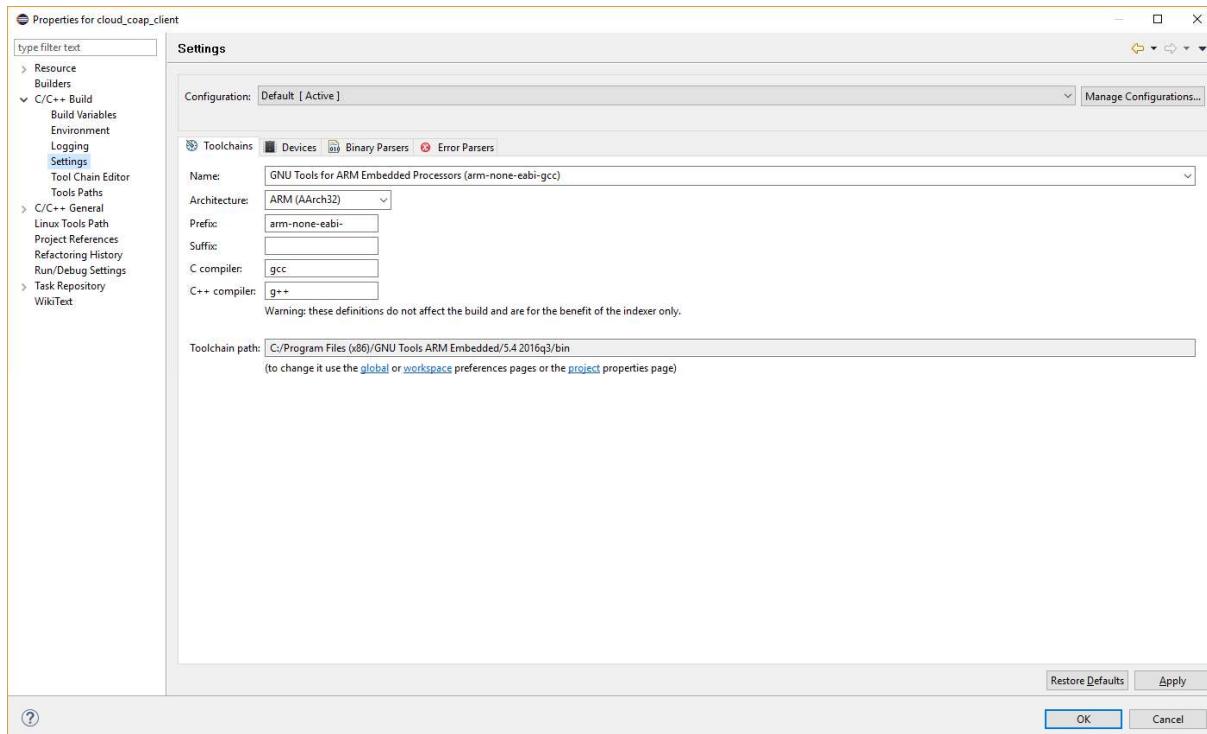
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The screenshot shows the 'Properties for cloud_coap_client' dialog box. The left sidebar contains a tree view with nodes like 'Resource Builders', 'C/C++ Build' (selected), 'Build Variables' (highlighted in blue), 'Environment', 'Logging', 'Settings', 'Tool Chain Editor', 'Tools Paths', 'C/C++ General', 'Linux Tools Path', 'Project References', 'Refactoring History', 'Run/Debug Settings', 'Task Repository', and 'WikiText'. The main area is titled 'Build Variables' and shows a table with columns 'Name', 'Type', and 'Value'. A configuration dropdown shows 'Default [Active]' with a manage configurations button. At the bottom are buttons for 'OK', 'Apply', 'Restore Defaults', and 'Cancel'.

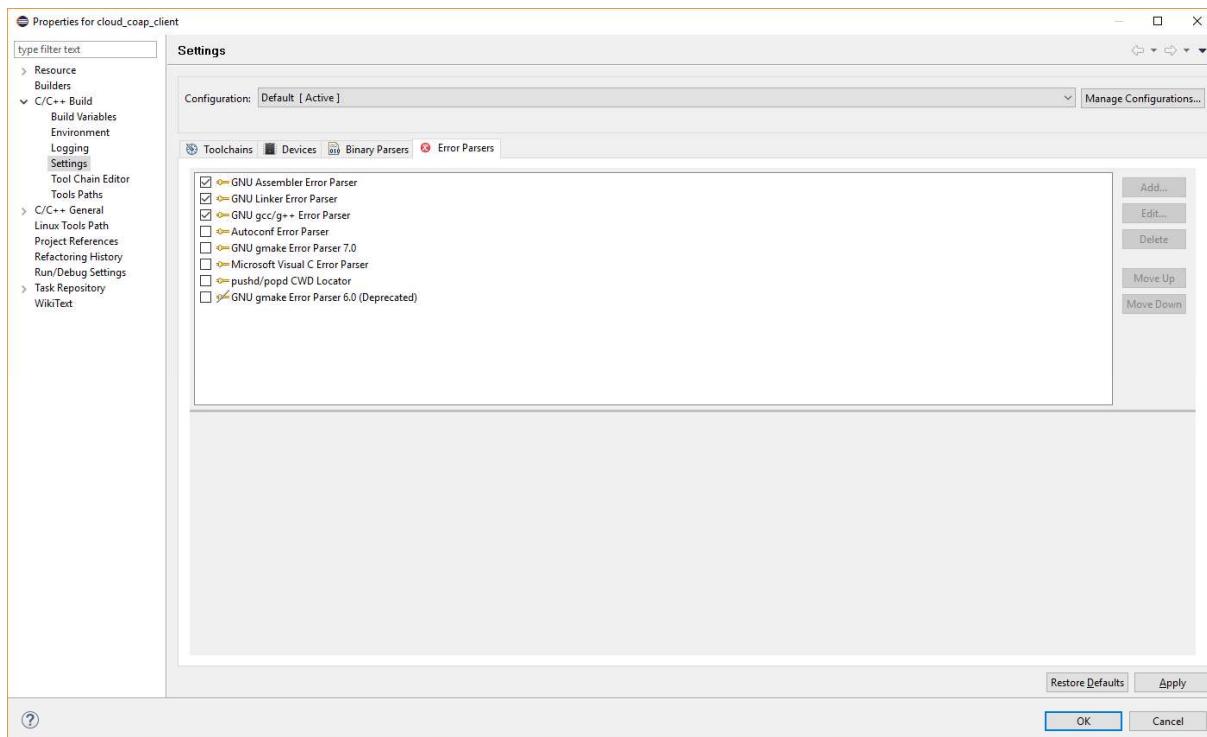
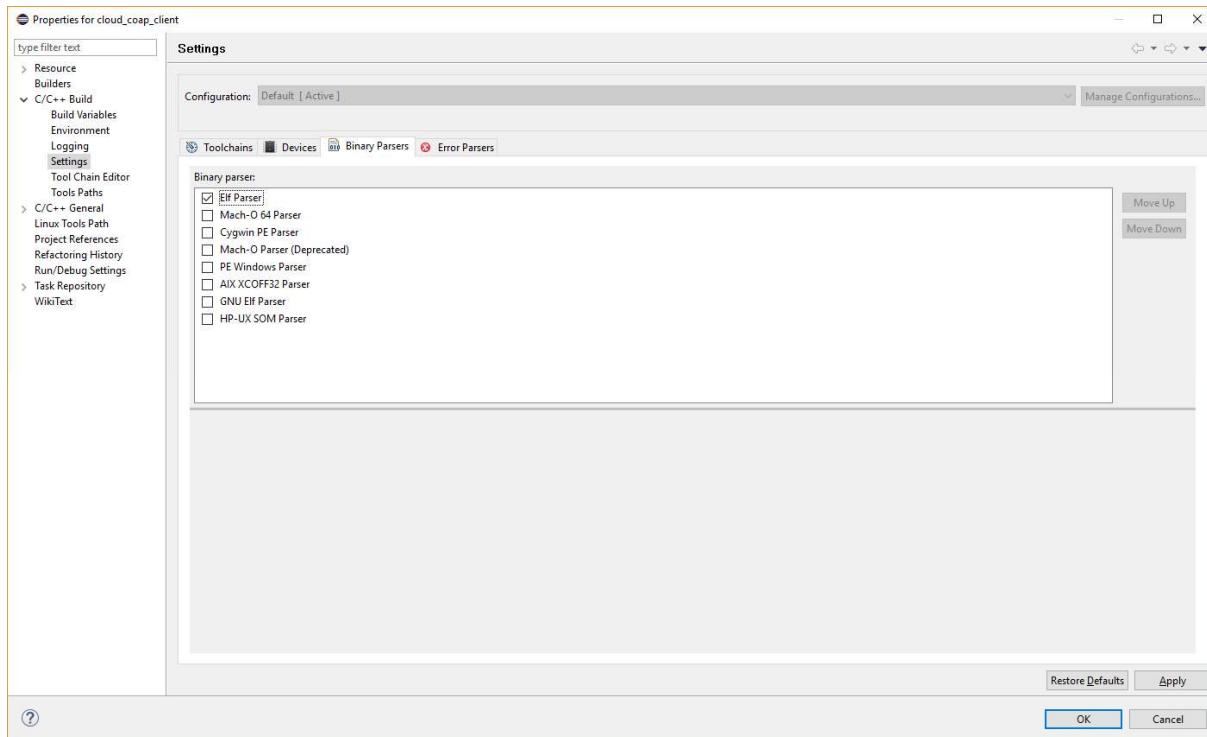
The screenshot shows the Eclipse IDE's Properties dialog for the project 'nRF52840_ThingIO'. The left sidebar contains a tree view with nodes like 'Resource', 'C/C++ Build', and 'C/C++ General'. The main area is titled 'Environment' and displays environment variables for the selected configuration ('Default [Active]'). A table lists variables such as CWD, PATH, and PWD with their corresponding values and origins ('BUILD SYSTEM'). On the right, there are buttons for managing configurations ('Add...', 'Select...', 'Edit...', 'Delete', 'Undefine') and environment variables ('Restore Defaults', 'OK', 'Cancel'). At the bottom, two radio buttons are shown: 'Append variables to native environment' (selected) and 'Replace native environment with specified one'.

Variable	Value	Origin
CWD	C:\Work\ nRF52840_ThingIO\Nordic_Eclipse\Projects\Feasibility_nRF52840\	BUILD SYSTEM
PATH	C:\Program Files\GNU ARM Eclipse\Build Tools\2.8-201611221915\bin;C:\Program Files...	BUILD SYSTEM
PWD	C:\Work\ nRF52840_ThingIO\Nordic_Eclipse\Projects\Feasibility_nRF52840\	BUILD SYSTEM

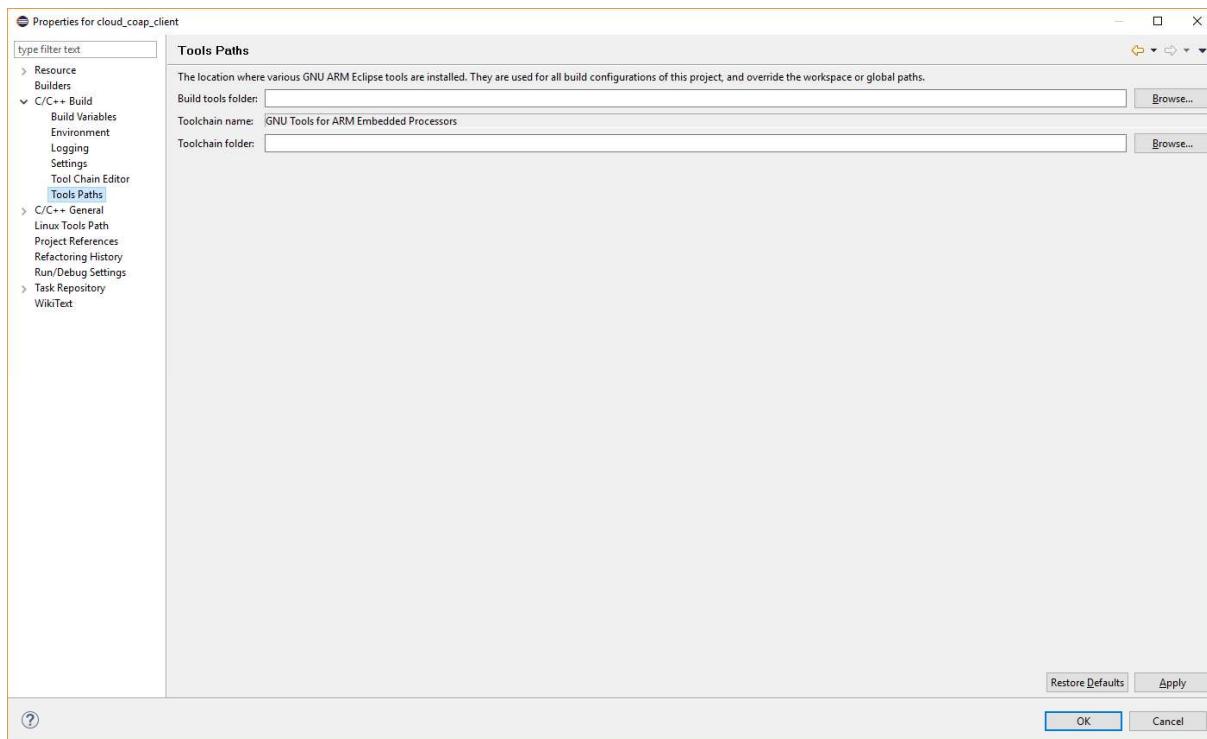
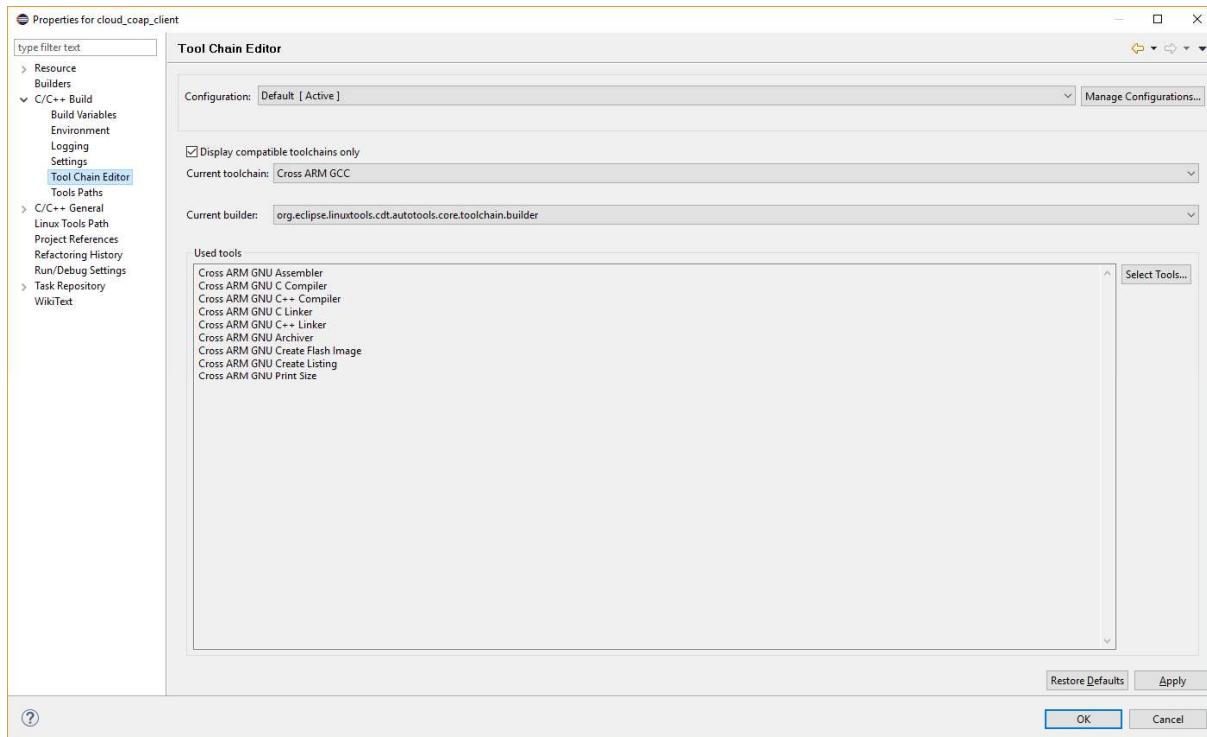
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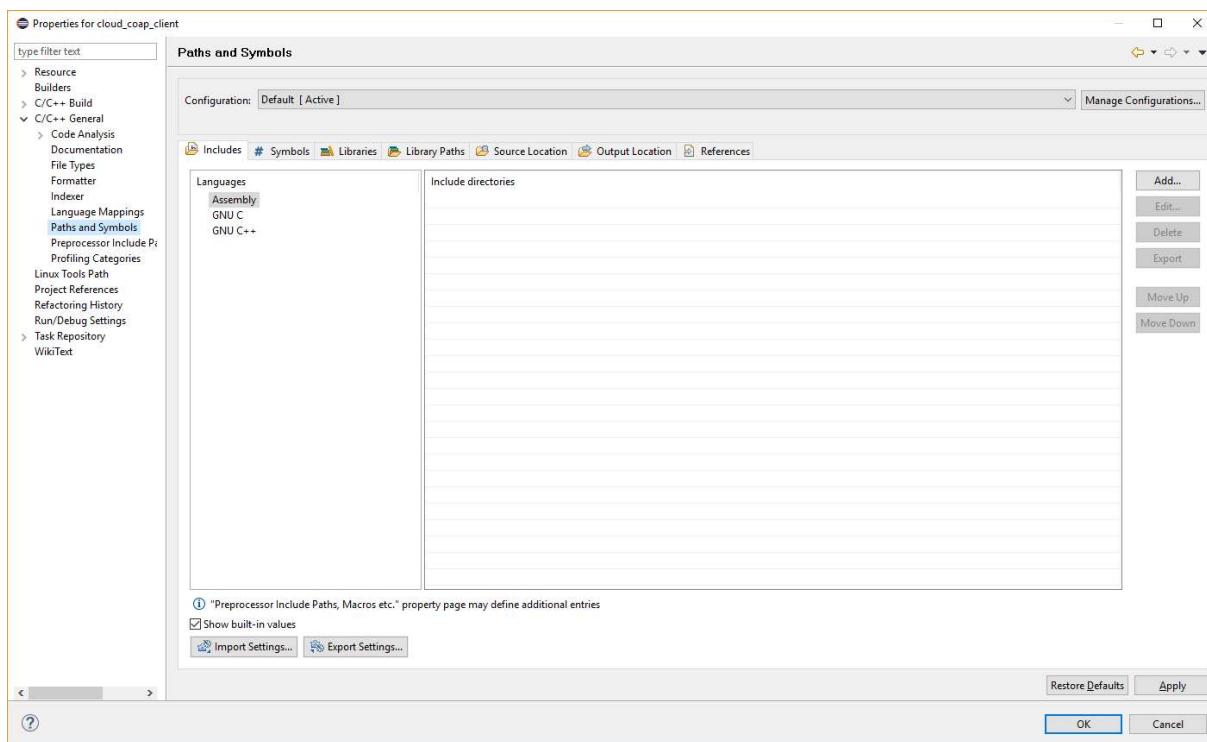
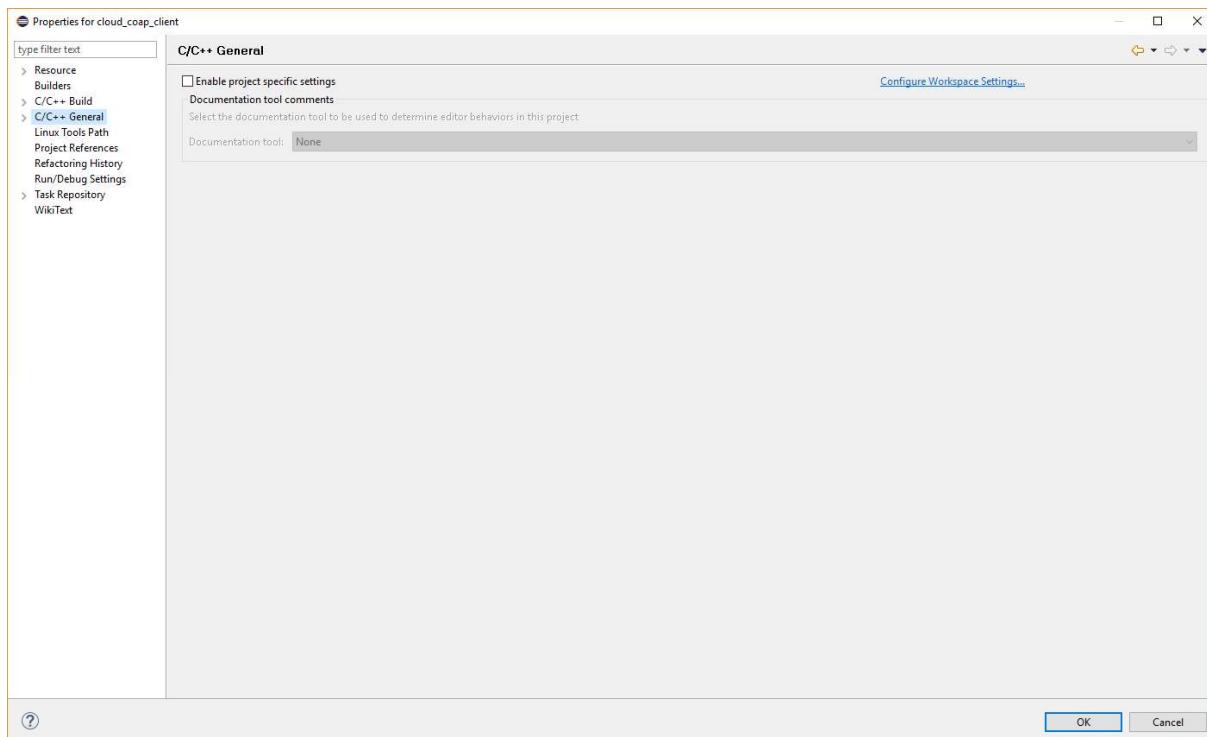


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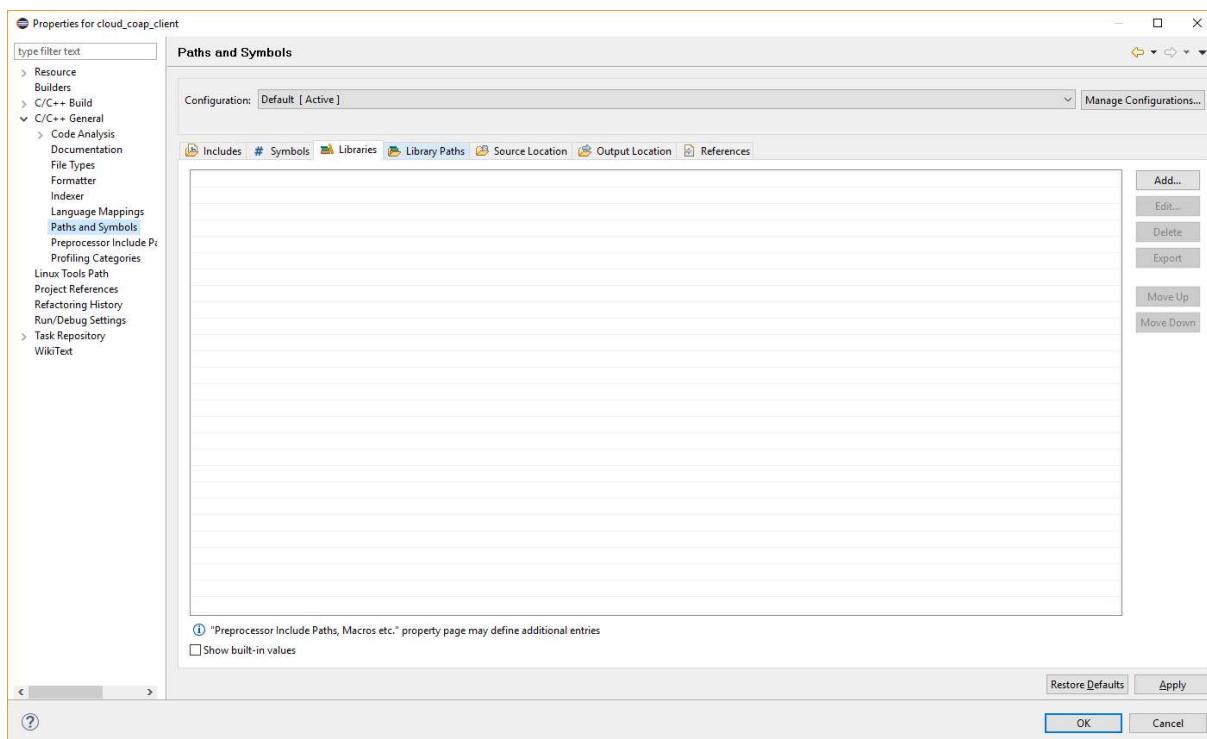
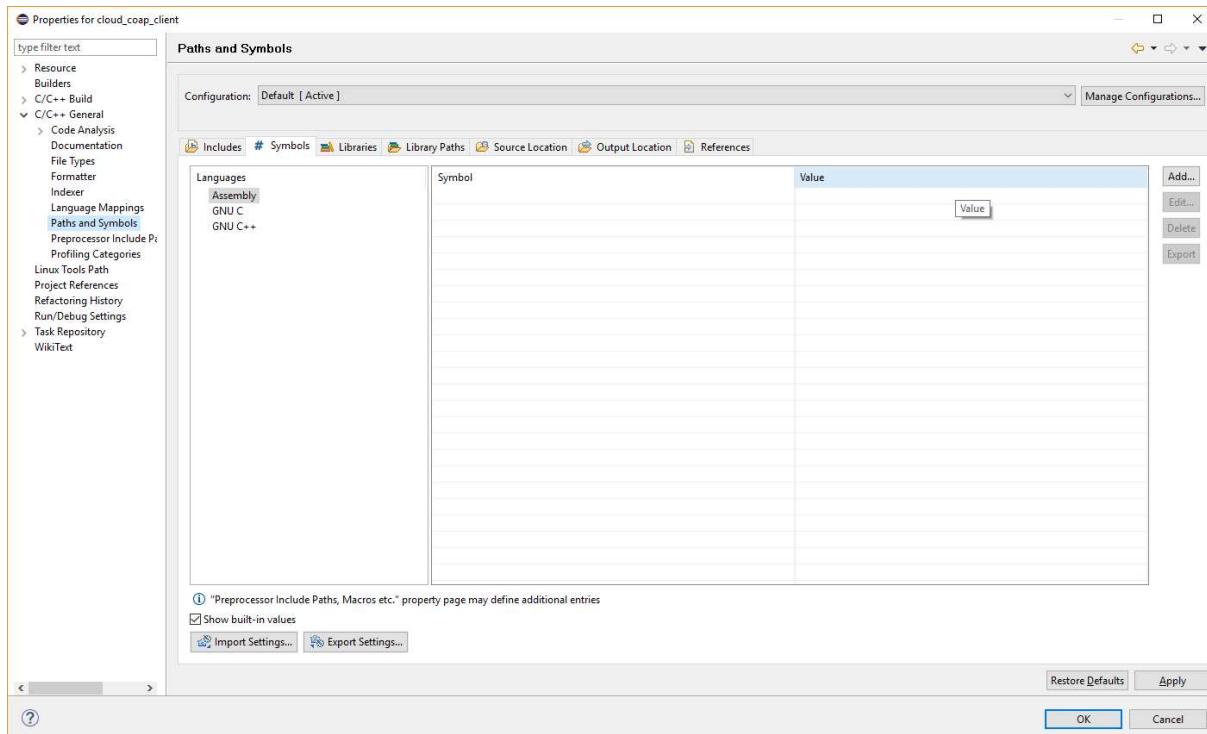


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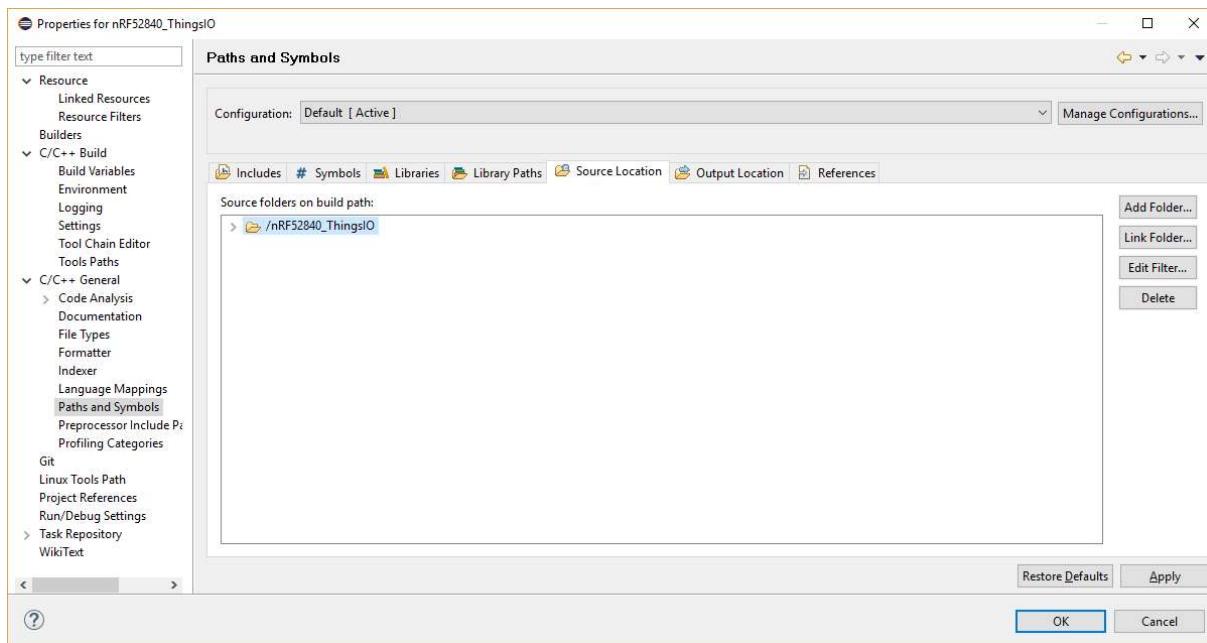
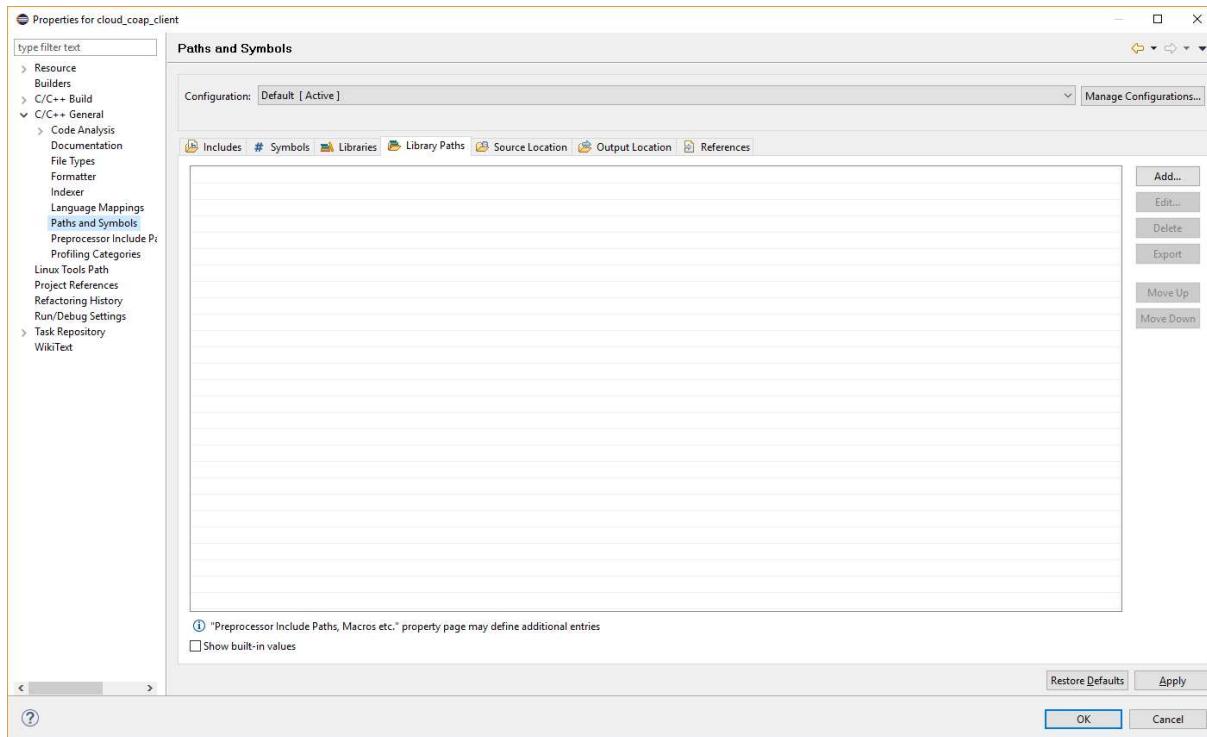
C/C++ General



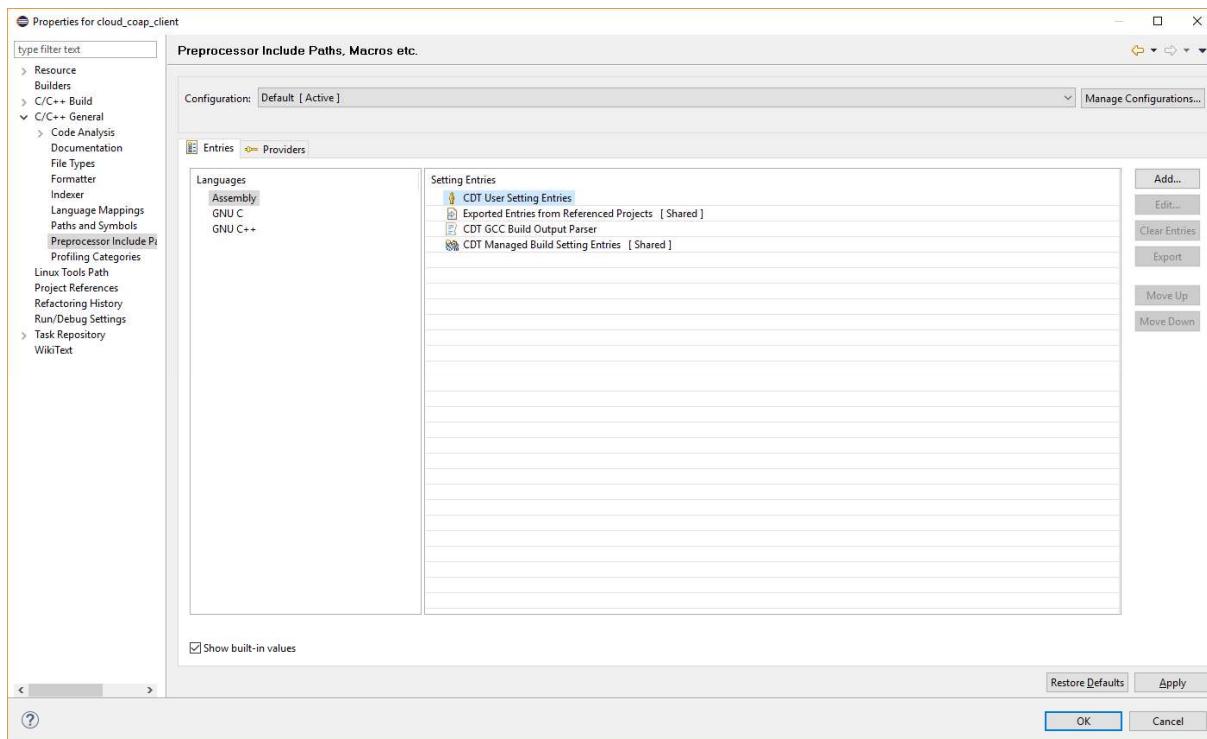
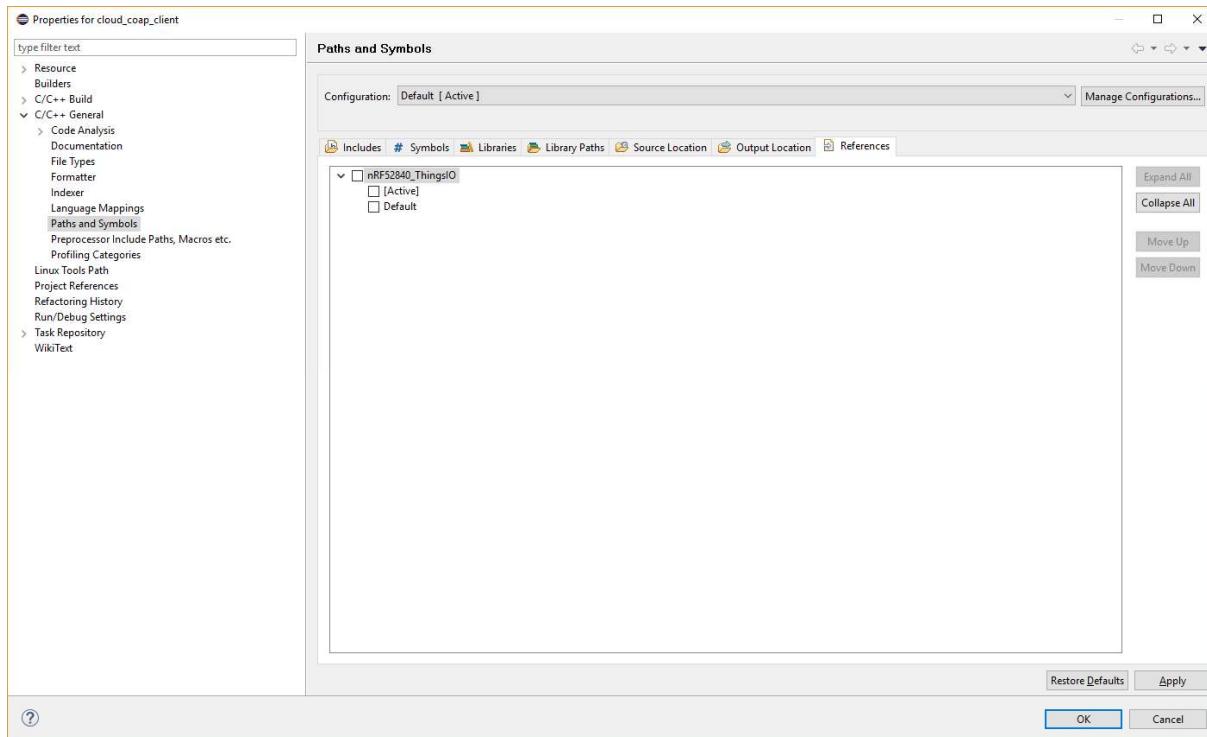
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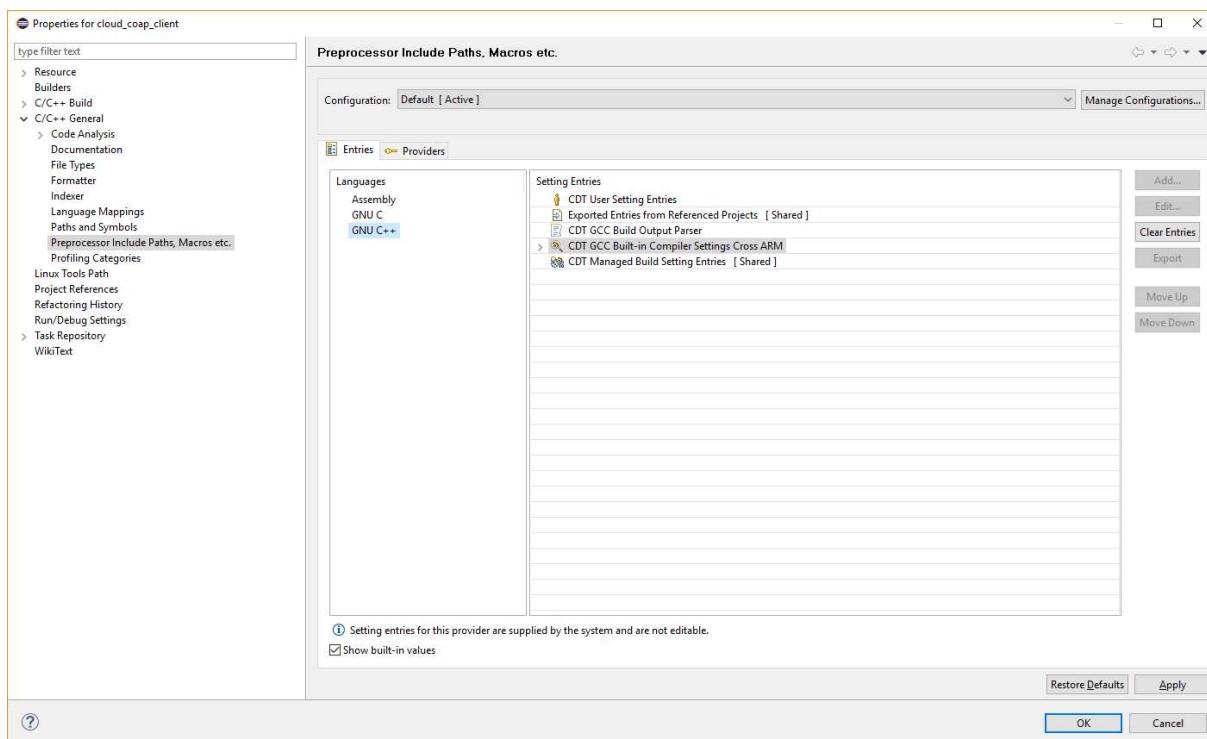
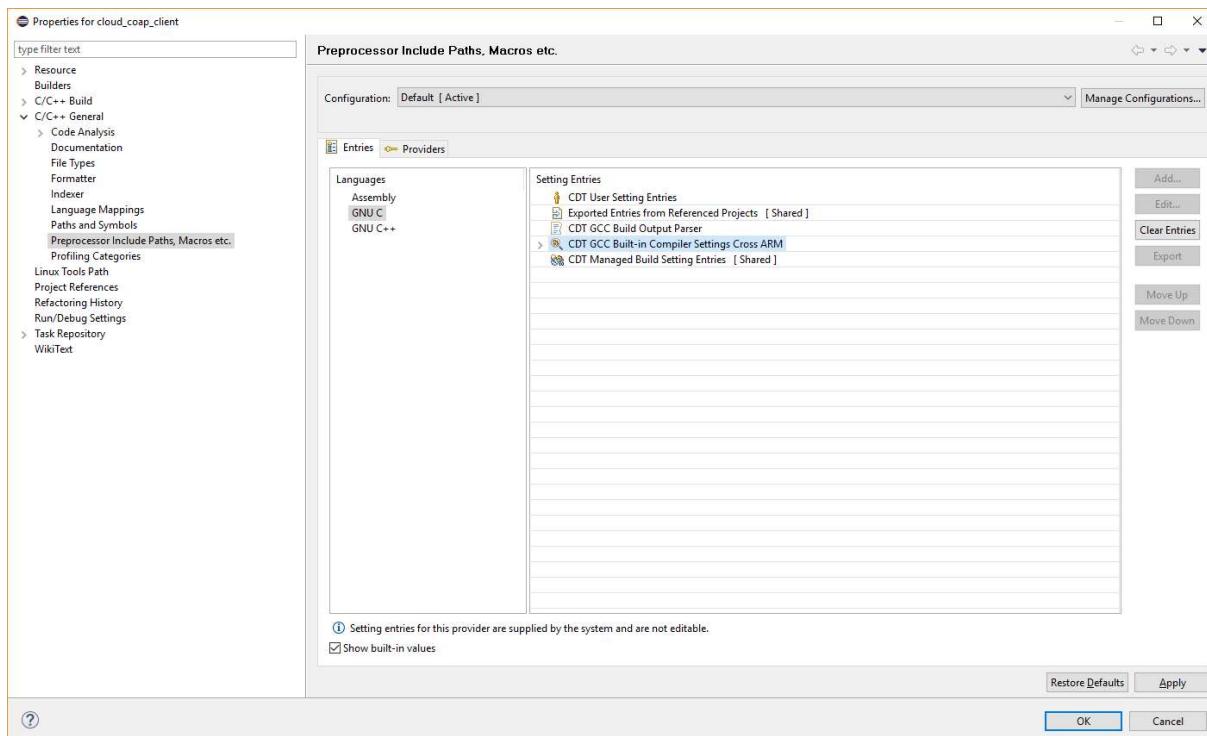
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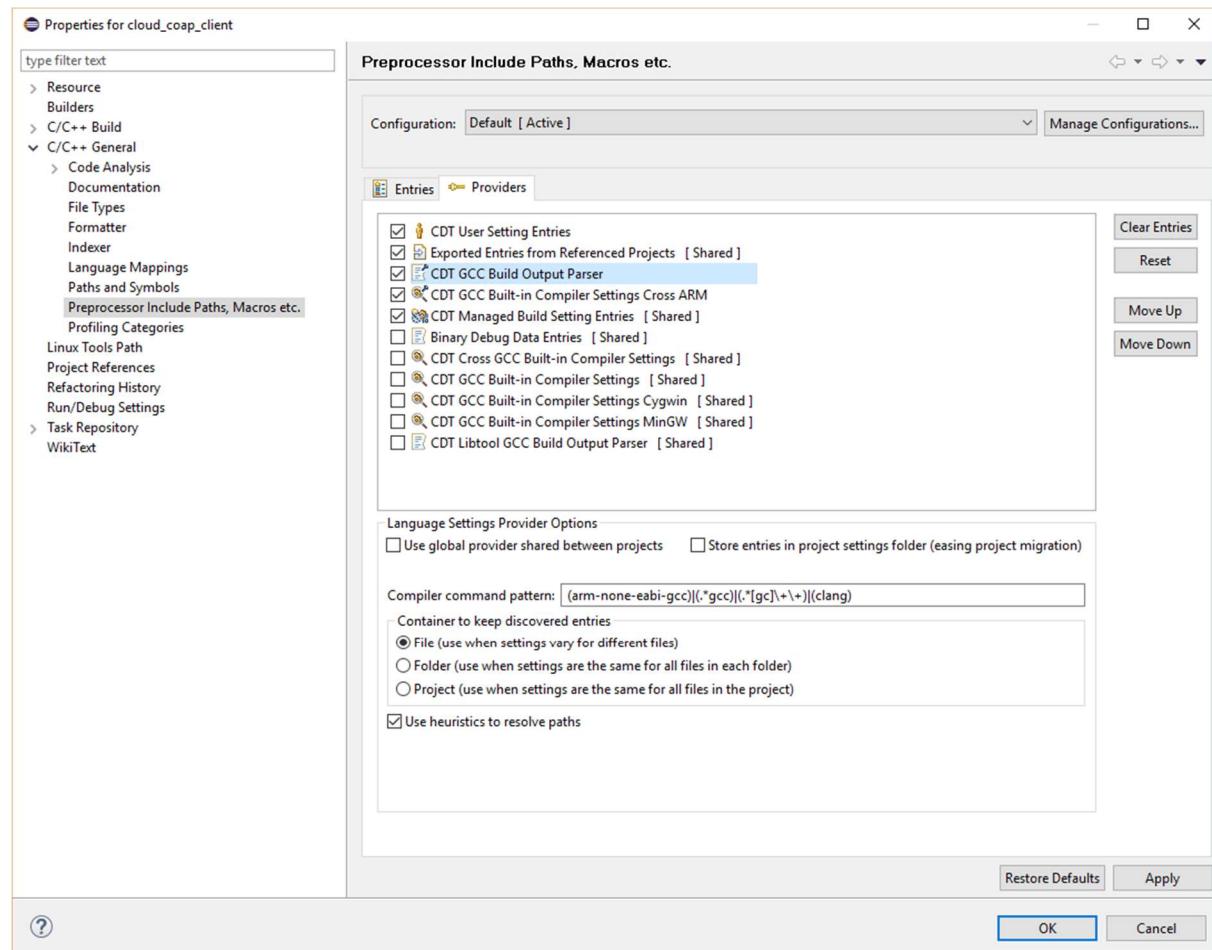
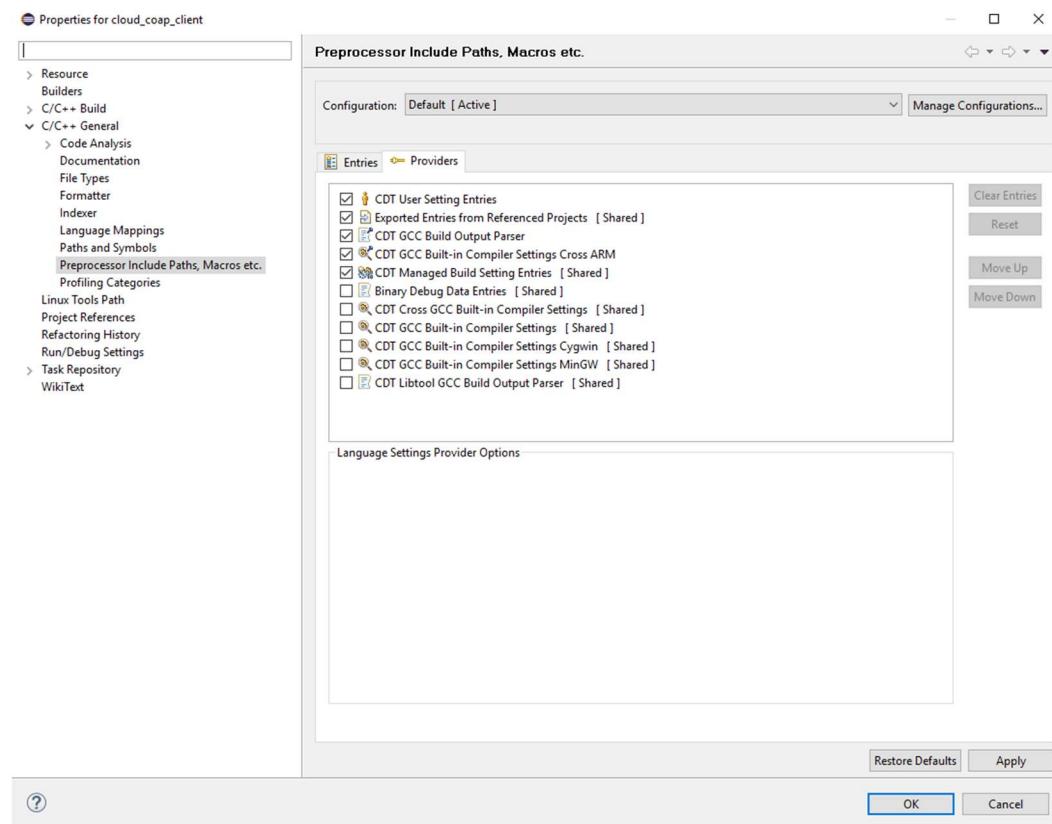
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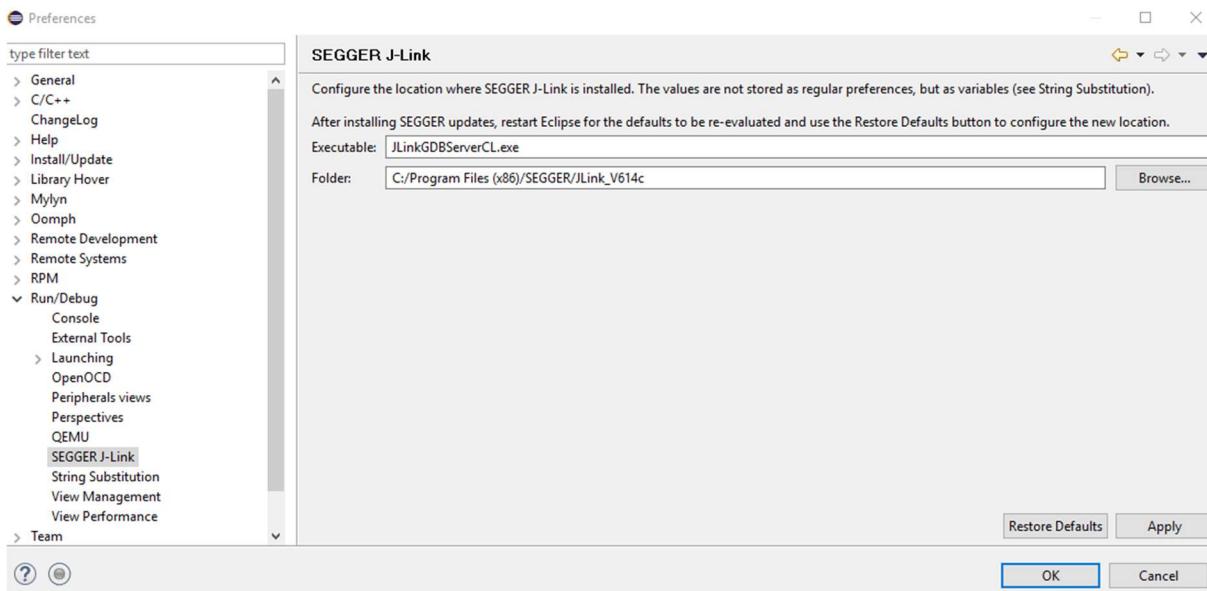
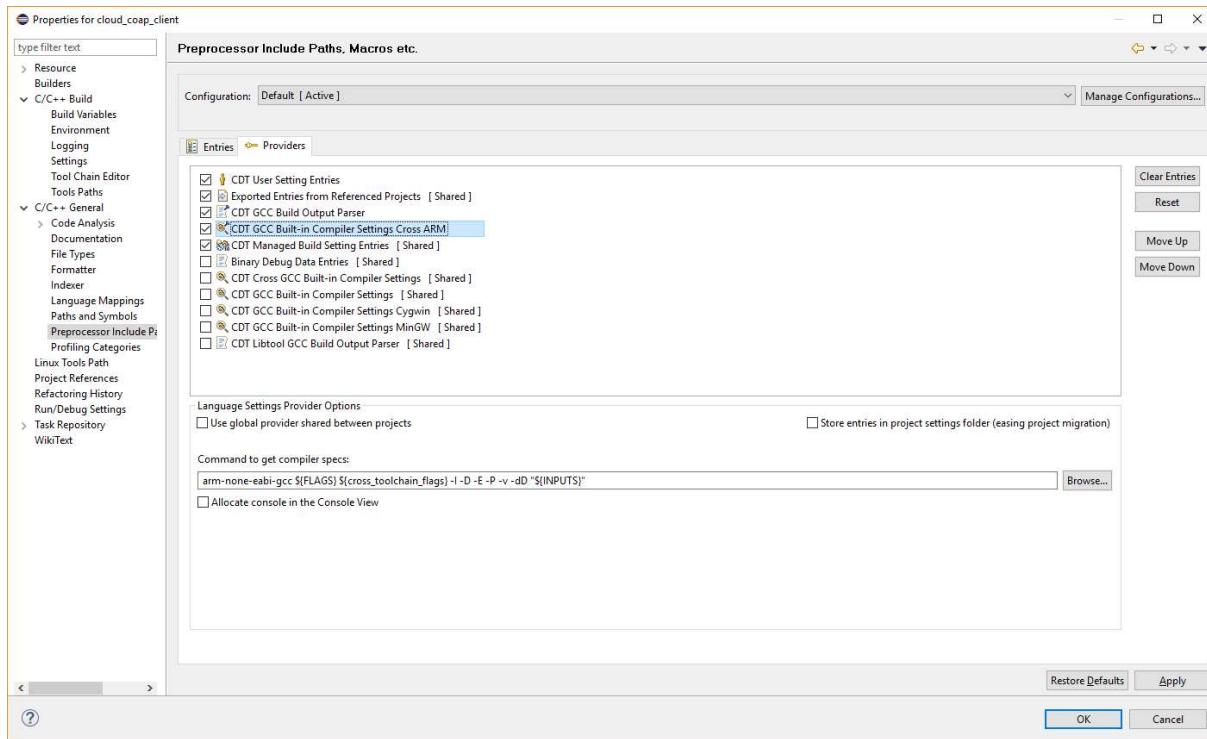
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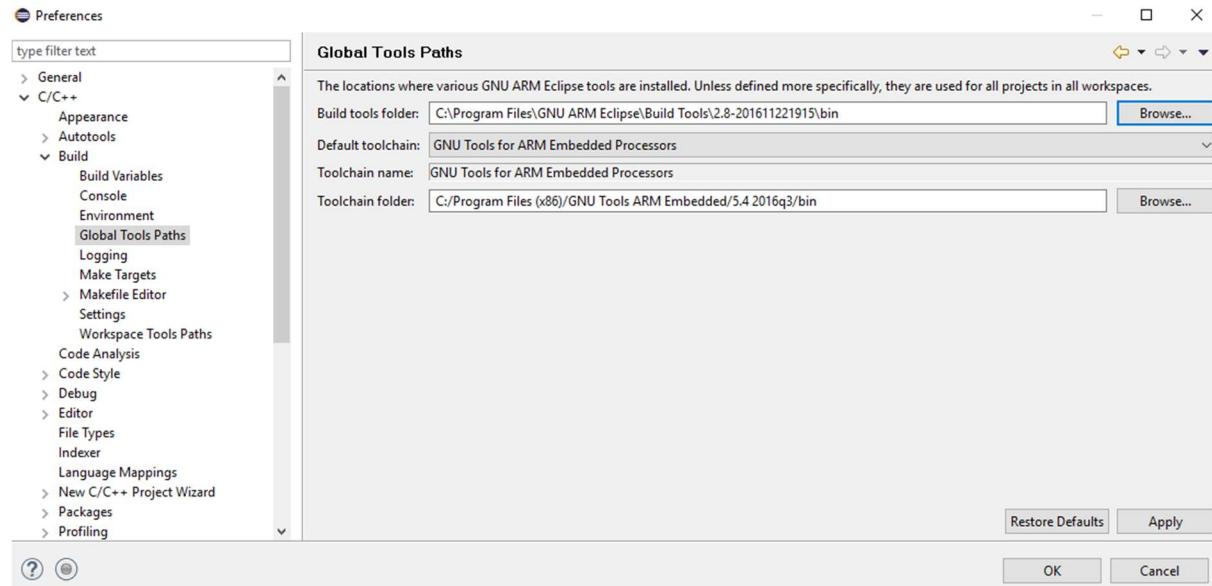
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10. Eclipse

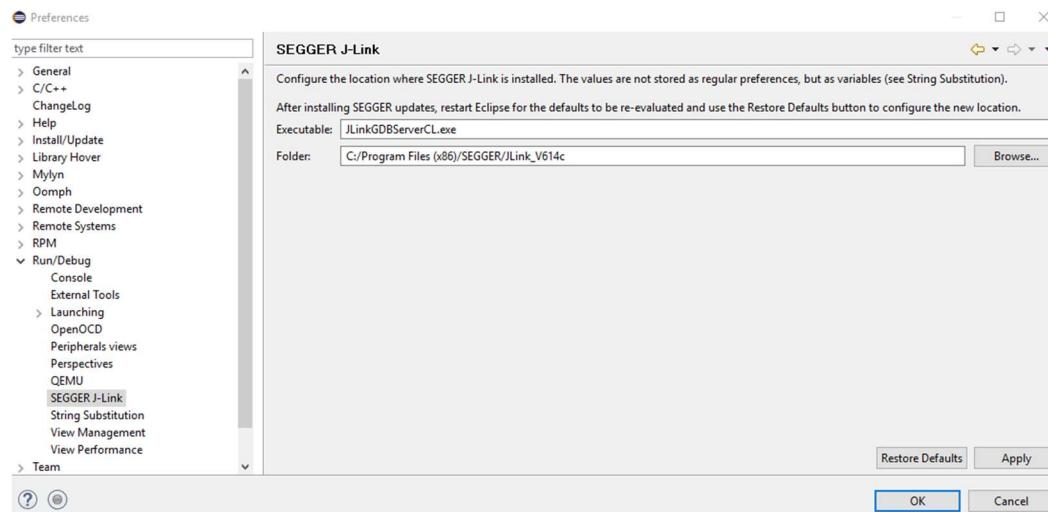
C/C++

Windows → Preferences



Run/Debug

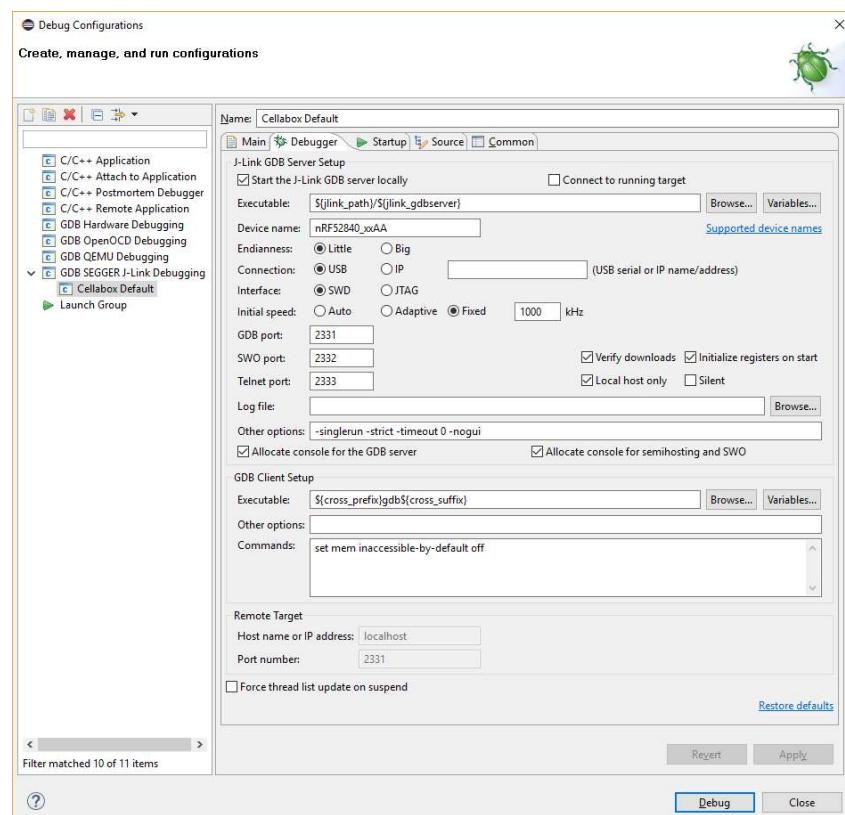
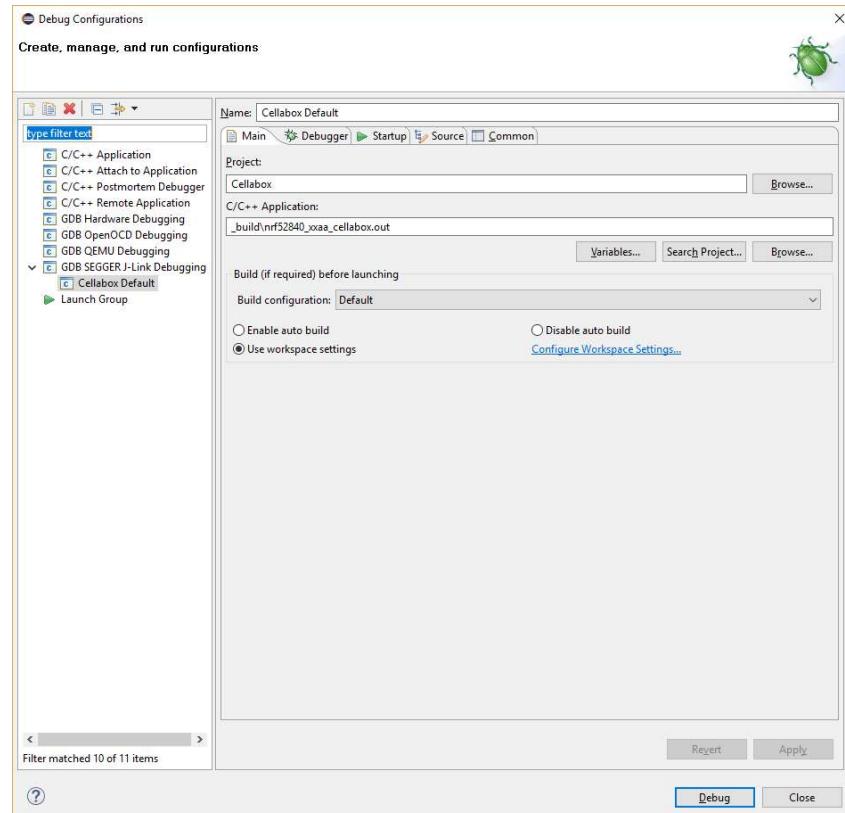
Windows → Preferences



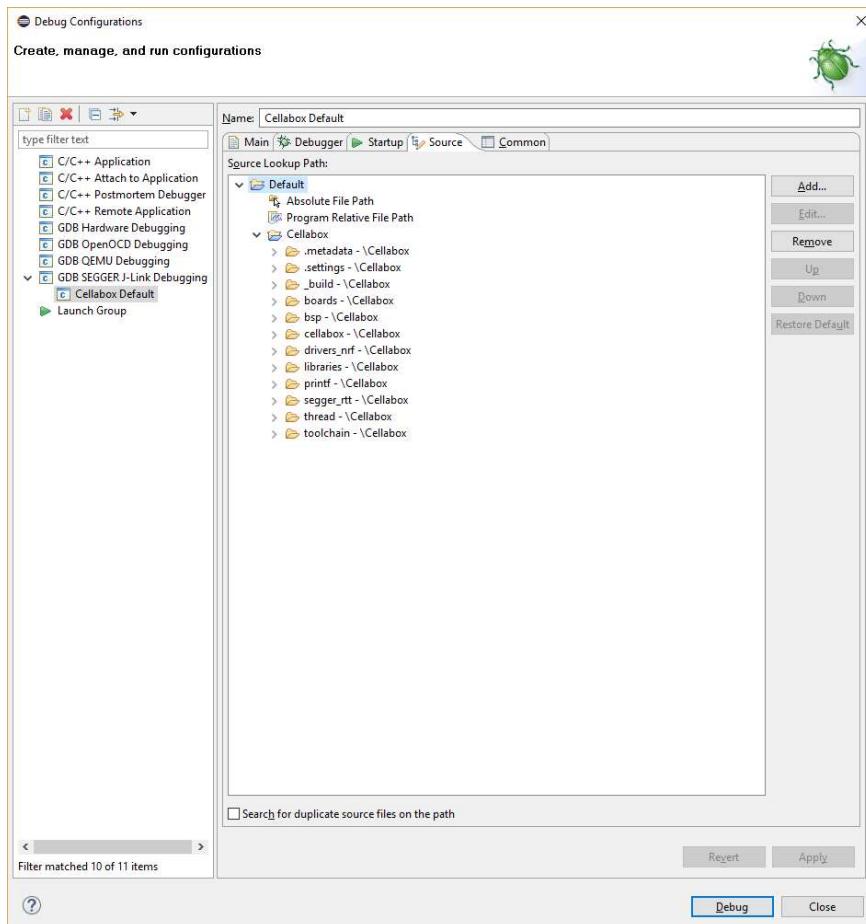
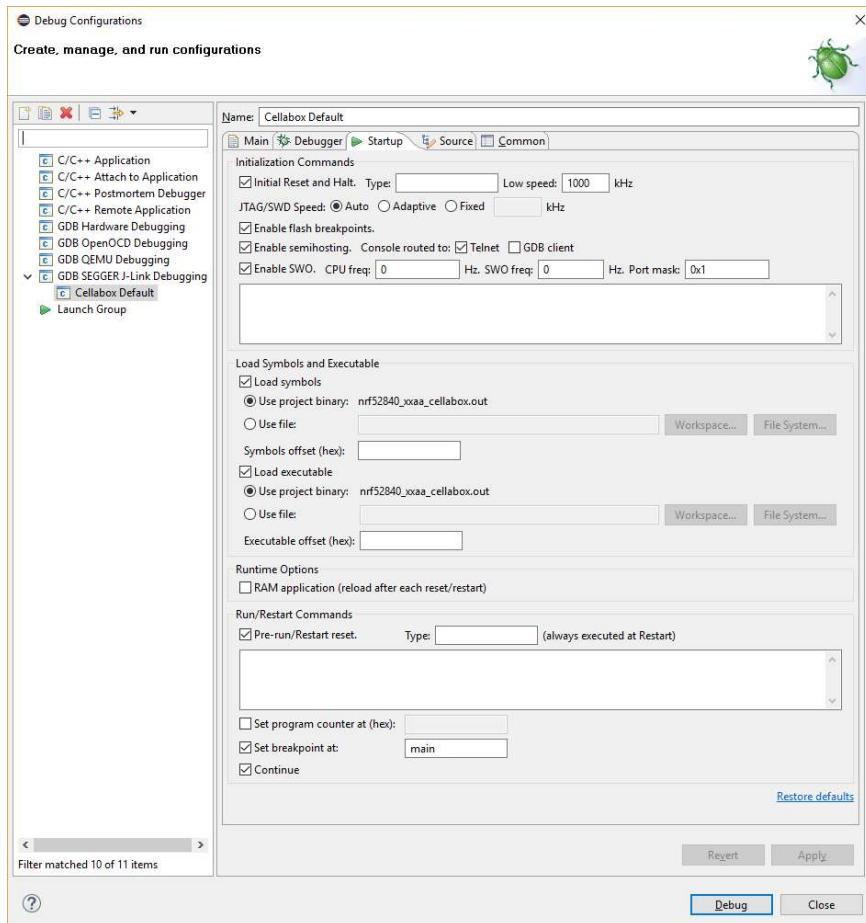
Debug configuration

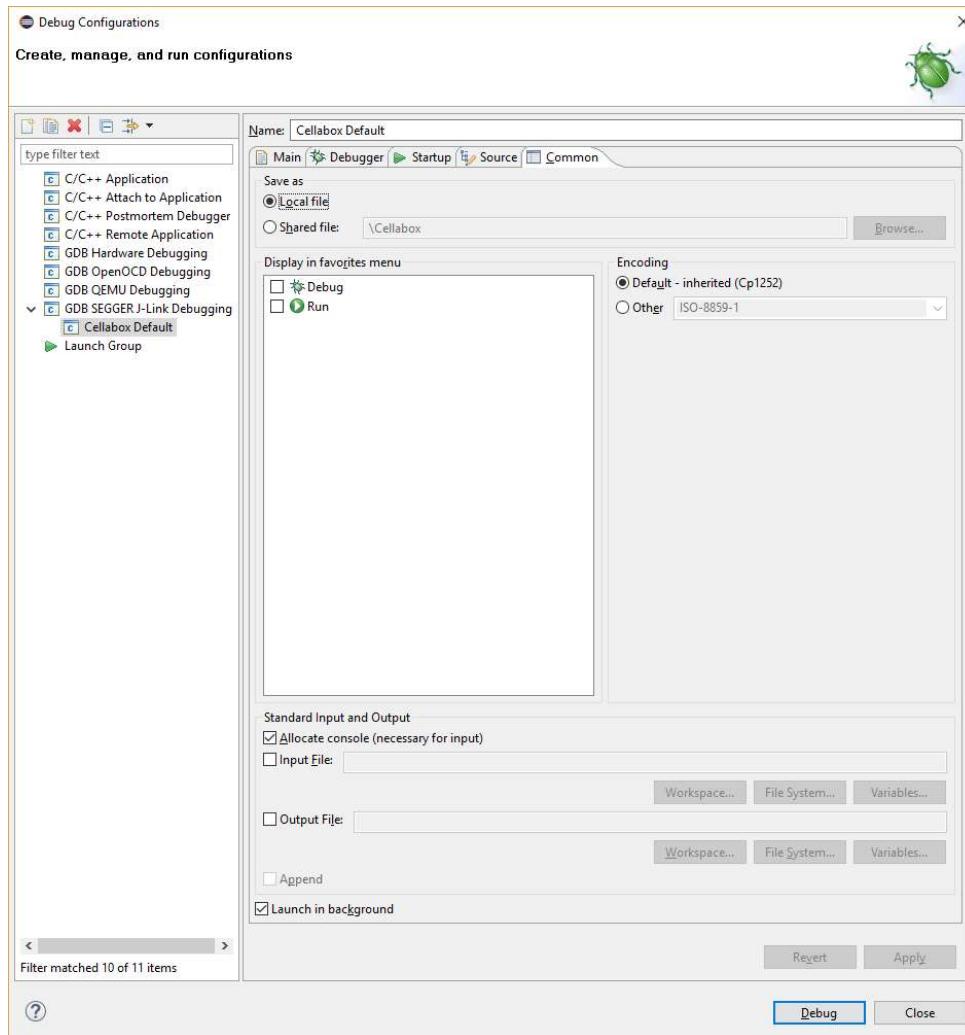
Run → Debug Configurations...

Create new launch configuration like shown below:



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Eclipse plug-ins

Eclipse Marketplace

Select solutions to install. Press Finish to proceed with installation.
Press the information button to see a detailed overview and a link to more information.

Search Recent Popular Installed Language Server Protocol 101 (May News!...)

Find: gnu arm

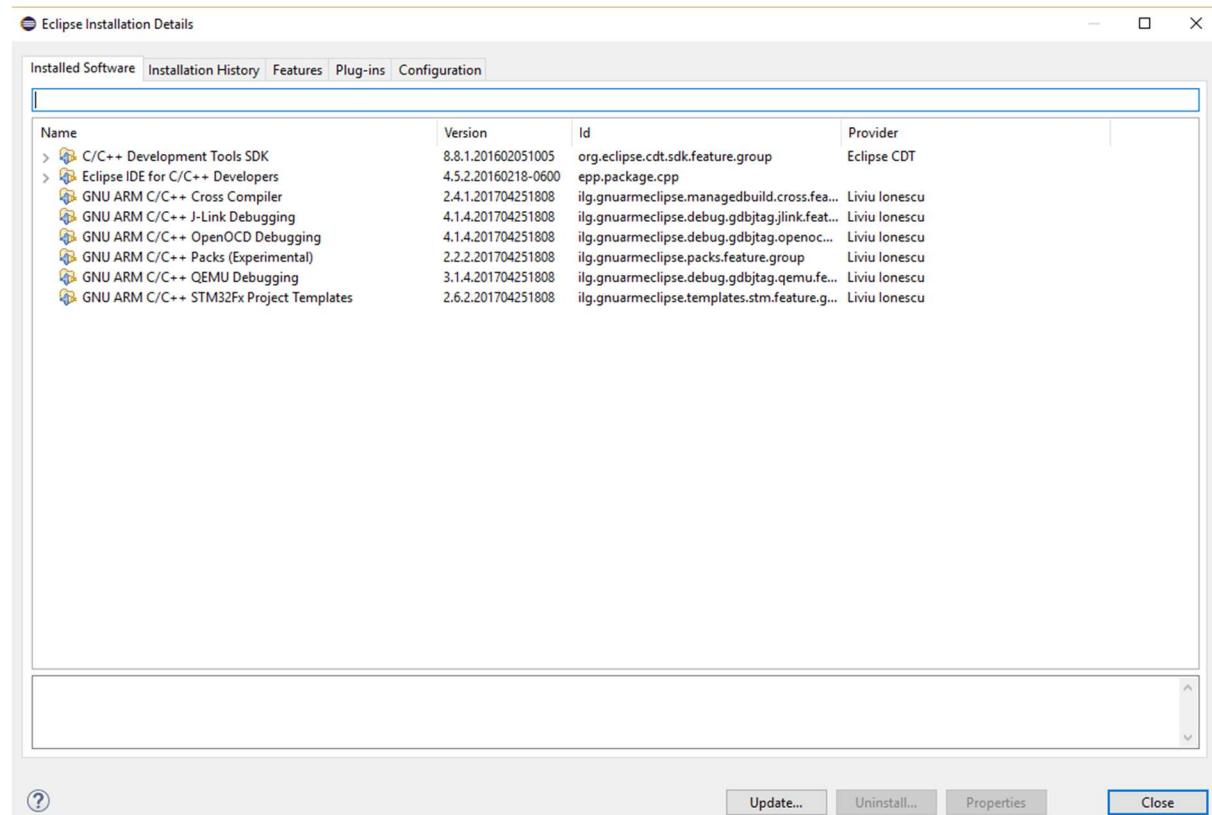
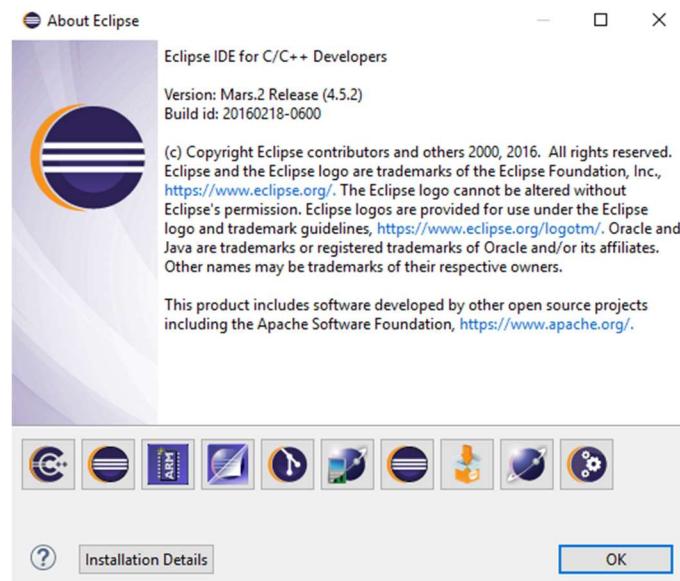
GNU ARM Eclipse 3.4.1

The GNU ARM Eclipse is an open source project that includes a family of Eclipse plug-ins and tools for multi-platform embedded ARM development, based on GNU... [more info](#)

by Unknown, EPL
GNU Arm Cortex-M J-Link openOCD QEMU

★ 19 ⚡ Installs: 27.5K (1'784 last month) **Installed**

Eclipse version



The screenshot shows the 'Eclipse Installation Details' window. It has tabs for 'Installed Software', 'Installation History', 'Features', 'Plug-ins', and 'Configuration'. The 'Installed Software' tab is selected, displaying a table of installed packages:

Name	Version	Id	Provider
C/C++ Development Tools SDK	8.8.1.201602051005	org.eclipse.cdt.sdk.feature.group	Eclipse CDT
Eclipse IDE for C/C++ Developers	4.5.2.20160218-0600	epp.package.cpp	
GNU ARM C/C++ Cross Compiler	2.4.1.201704251808	ilg.gnuarmeclipse.managedbuild.cross.fea...	Liviu Ionescu
GNU ARM C/C++ J-Link Debugging	4.1.4.201704251808	ilg.gnuarmeclipse.debug.gdbjtag.jlink.feat...	Liviu Ionescu
GNU ARM C/C++ OpenOCD Debugging	4.1.4.201704251808	ilg.gnuarmeclipse.debug.gdbjtag.openoc...	Liviu Ionescu
GNU ARM C/C++ Packs (Experimental)	2.2.2.201704251808	ilg.gnuarmeclipse.packs.feature.group	Liviu Ionescu
GNU ARM C/C++ QEMU Debugging	3.1.4.201704251808	ilg.gnuarmeclipse.debug.gdbjtag.qemu.f...	Liviu Ionescu
GNU ARM C/C++ STM32Fx Project Templates	2.6.2.201704251808	ilg.gnuarmeclipse.templates.stm.feature.g...	Liviu Ionescu

At the bottom are buttons for '?', 'Update...', 'Uninstall...', 'Properties', and 'Close'.