SurgiTAIX AG
Medical Technologies

SDCLib & CMake

Eclipse Setup

Eclipse CDT Setup

This document describes how to create an Eclipse CDT Project from the SDCLib CMake Project with cmake-gui.

Overview

- Requirements

- CMake to Eclipse: 2 Steps
  - Generate the Makefiles
  - Import into Eclipse

- Configuring the Indexer for c++11

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Overview

- **Requirements**

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Requirements

- Cloned git repository of SDCLib

- All required packages to build the SDCLib
  - xsdcxx
  - libxerces-c-dev
  - libssl-dev

- Cmake-gui

- Eclipse (CDT)

Overview

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Cmake to Eclipse: 2 Steps

- The first step covers the generation of the Makefiles with the cmake-gui in an out-of-source approach.

- **Out-of-source**: The binaries are not built in the same folder as your source and CMake files. You can easily „cleanup" by deleting the generated files from the filesystem without touching the source code and manage different (external) binary folders for different kind of build types (DEBUG, RELEASE, etc.).

- The second step covers the import of the generated Makefiles into the Eclipse IDE.

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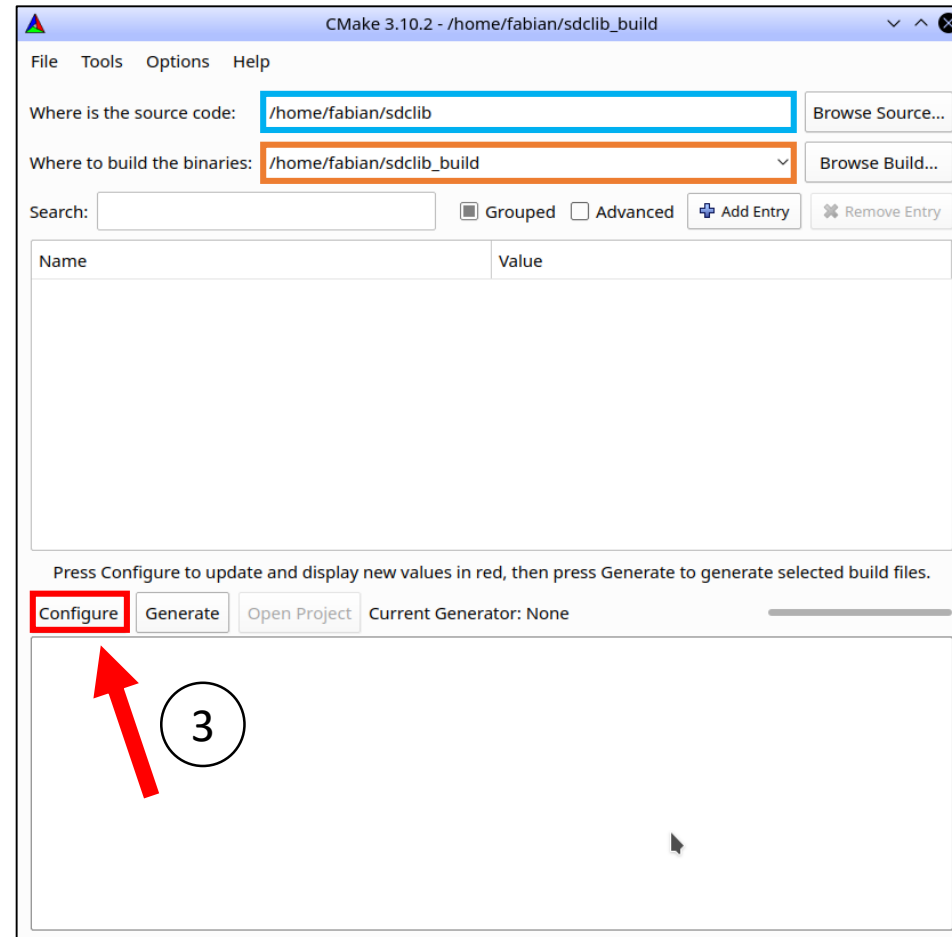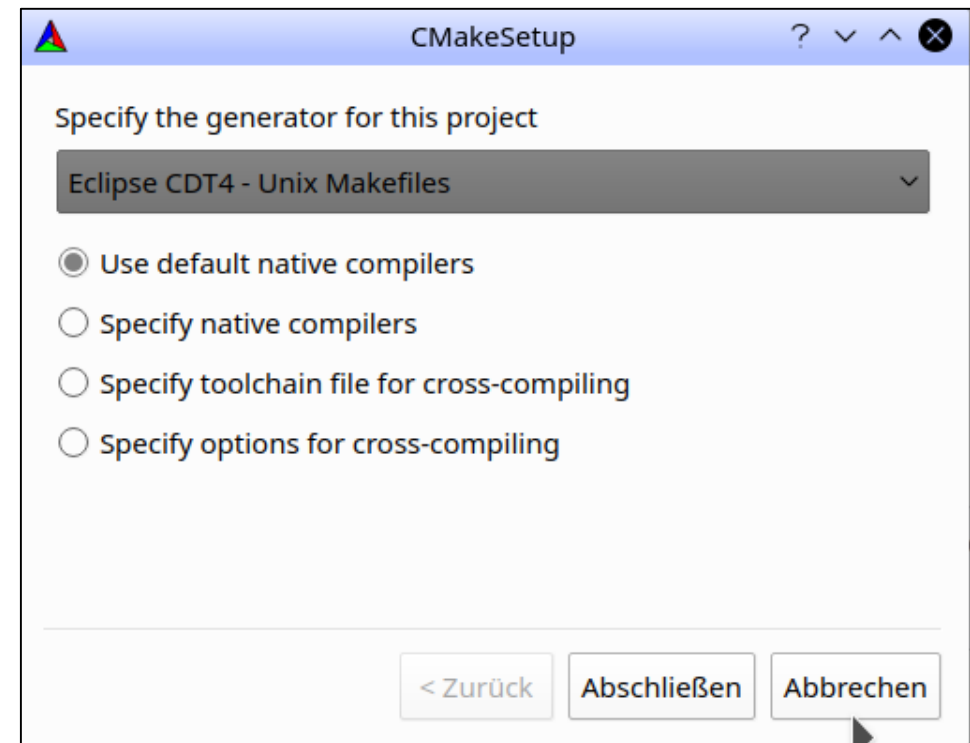
Generate the Makefiles

Cmake-gui

Generate the Makefiles

When asked which generator to use, select:

Eclipse CDT4 – Unix Makefiles

Note

You can „Specify native compilers", but most users should be fine with the „Use default native compilers" option.
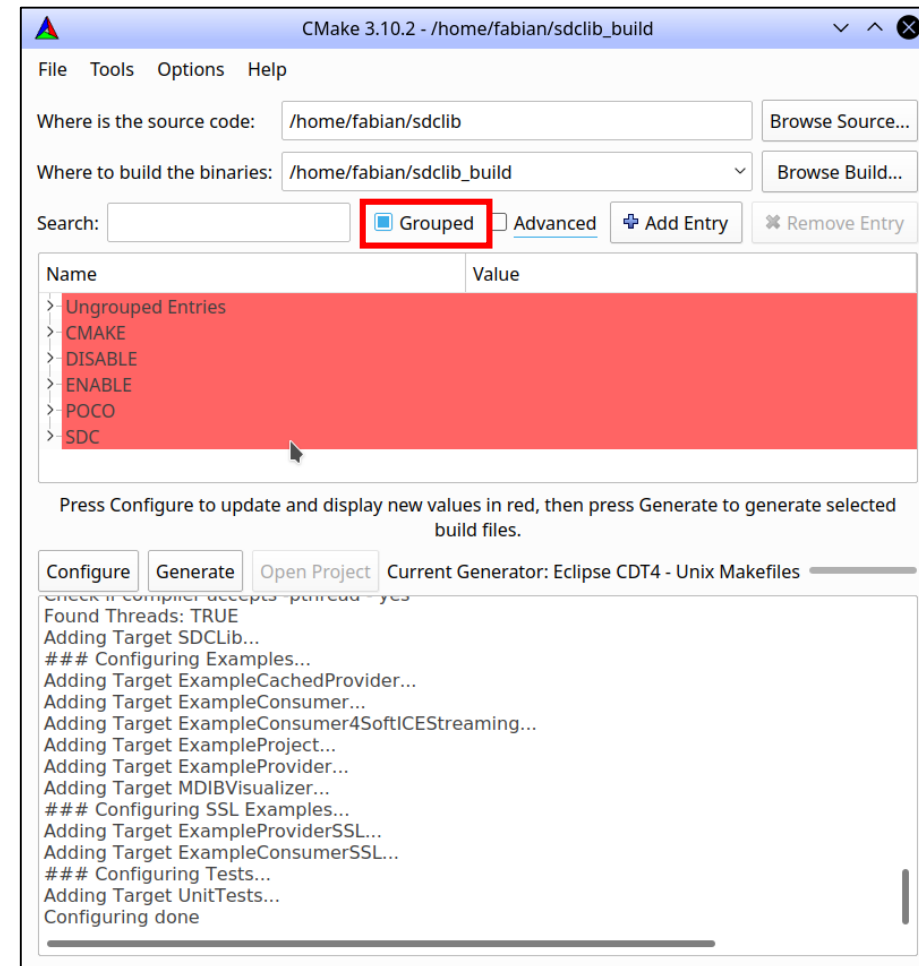
Generate the Makefiles

The configuring process should start and you should see something similar to this:

Hint
You should check the „**Grouped**" checkbox
for a better overview.

Variables highlighted red were „updated" in the
last configure step. Another click on *Configure*
will remove this mark. Keep configuring until
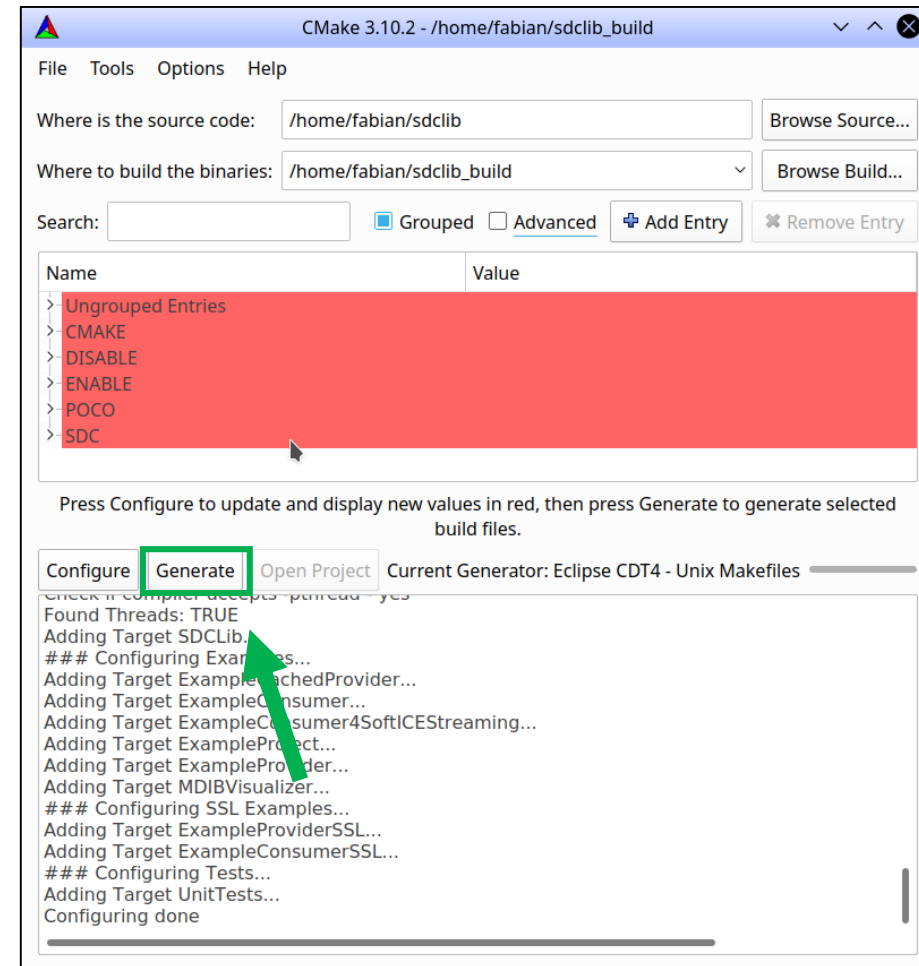there are no more highlighted variables.

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Generate the Makefiles

Next click *Generate*.

The Makefiles are now generated inside the specified build directory.

Note
If you specify *Unix Makefiles* as generator (at the beginning), you can navigate to the build folder and execute **make** to build the project.
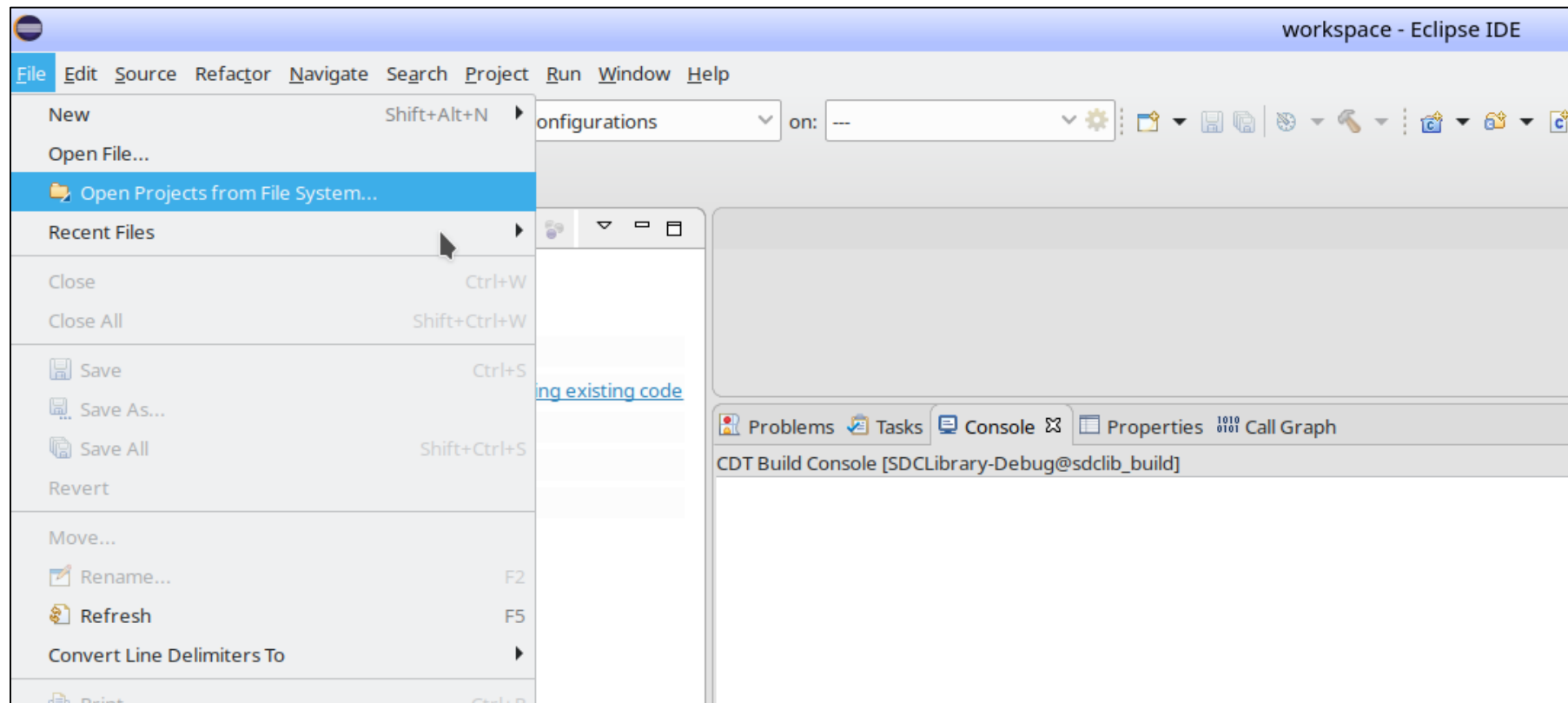
Overview

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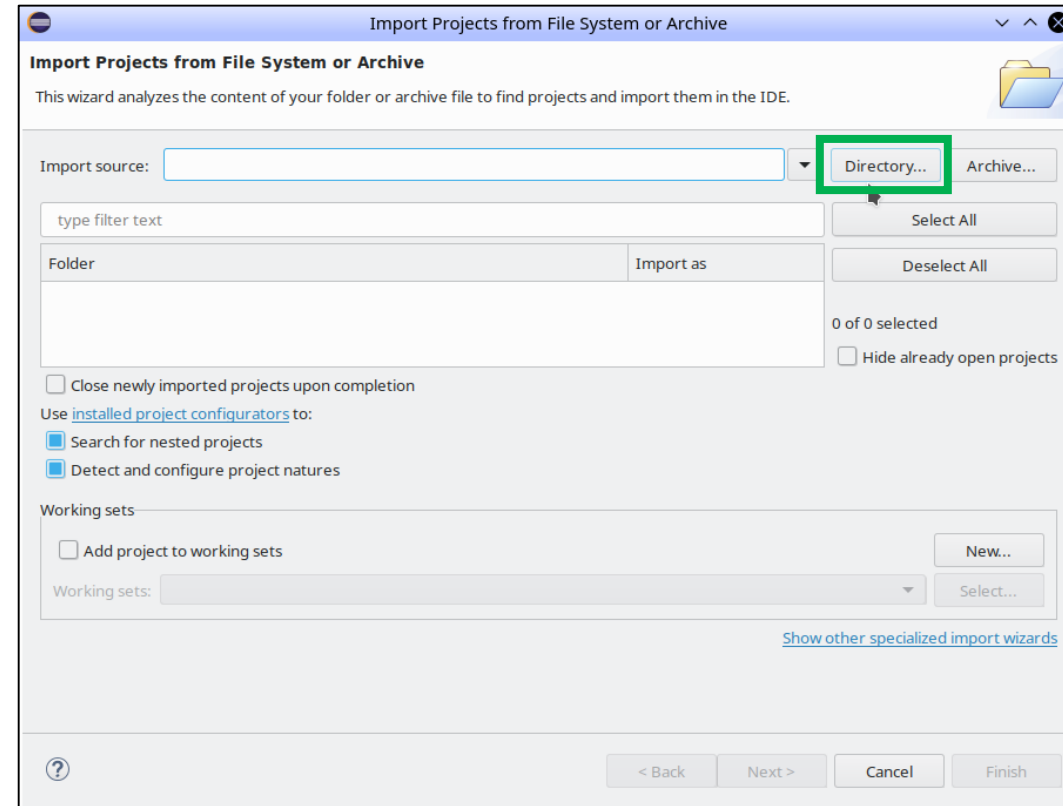 - **Import into Eclipse**
- Configuring the Indexer for c++11

Import into Eclipse

- Open Eclipse CDT (Here Eclipse Version 2019-03 (4.11.0)
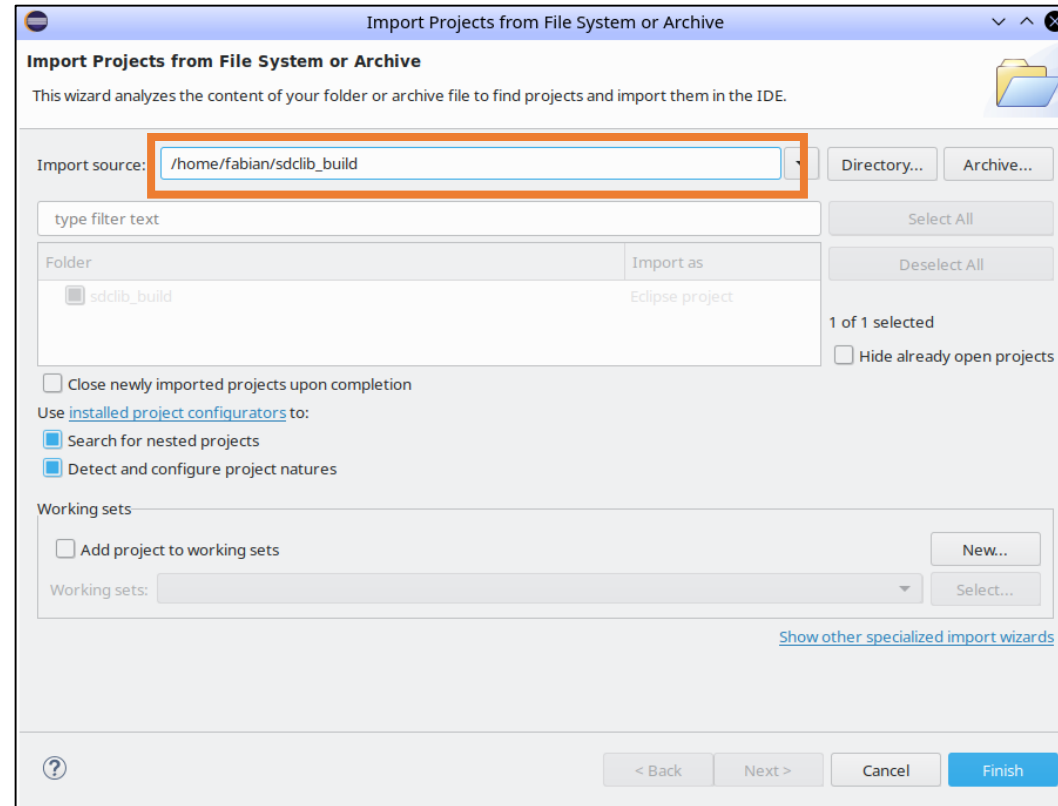- Select: **File-> Open Projects from File System…**

Import into Eclipse

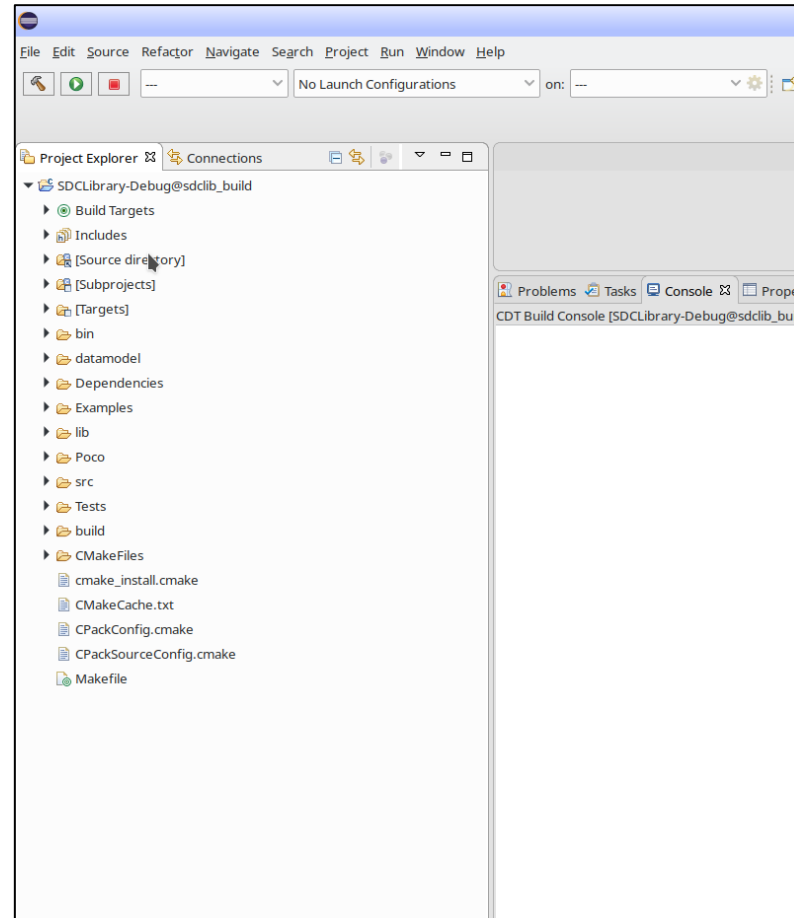- A dialog will open
- Select: **Directory**

Import into Eclipse

- Select the folder where you **generated(!) the Makefiles.**
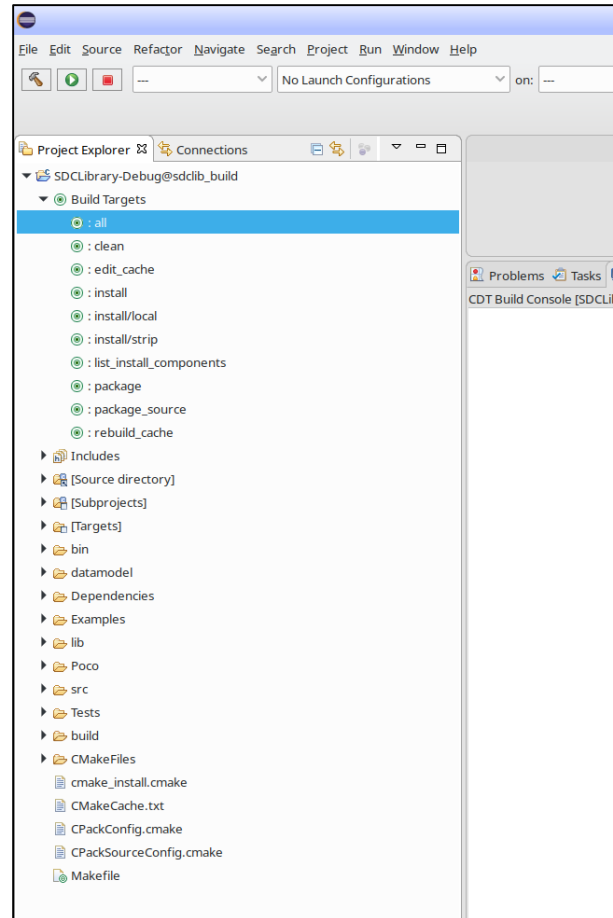- In this example /home/fabian/sdclib_build

Import into Eclipse

- You should now see the SDCLib Project with its build targets.
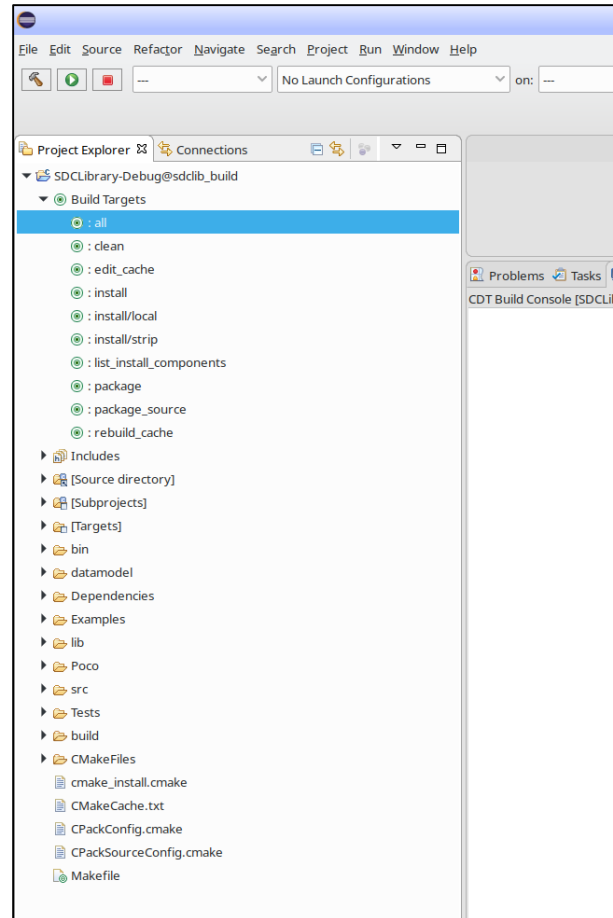
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Import into Eclipse

- If you have built Examples / Tests they will be build at the top level target called **all**, too.

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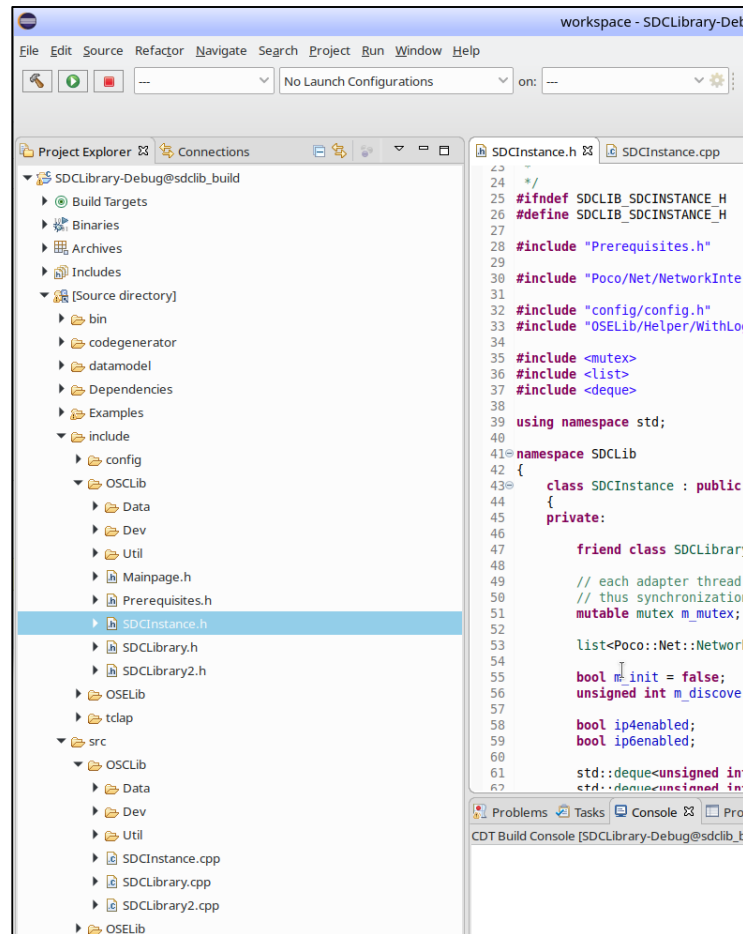
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Import into Eclipse

- To just build the SDCLib navigate into the src (source) folder and use the SDCLib build target.

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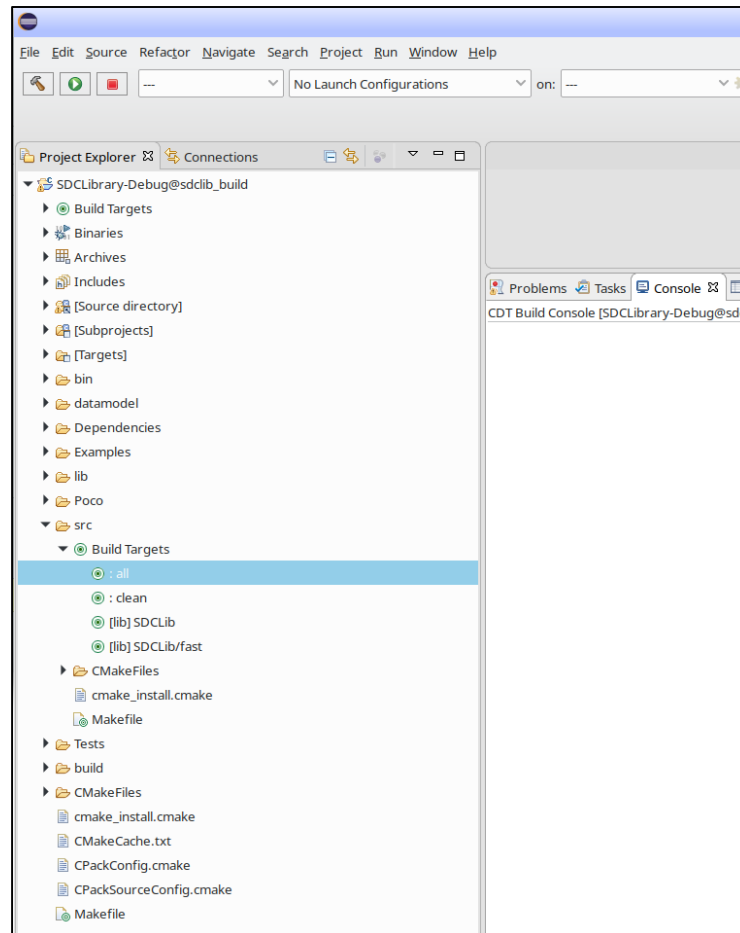
Import into Eclipse

- Source and Include files are located under **[Source directory]**.

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Import into Eclipse

Note
As long as you only change the file contents (work on the source code files) and don't make any major changes to the CMakeLists files or the whole project structure (moving/deleting files), there is no need to reconfigure or re-generate the project with cmake-gui!

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Configuring the Indexer for c++11

- To configure the source code indexer to work with the c++11 standard go to:
    - **Project -> Properties -> C/C++ General -> C/C++ Include Path and Symbols**
    - Add (or overwrite if already defined) Preprocessor Symbol:
        - Symbol: _cplusplus
        - Value: 201103L