Installing and Checking the Installation of the CLEARSY Safety Platform

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Installation foreword

- Installation tested on Windows 10/11 (both exe installer and WSL with Ubuntu) and Ubuntu 24.04
- Current installation process depends on correct Python installation
- Most usual mistakes listed in the troubleshooting
- Other configurations not tested and full support not guaranteed

- Additional projects Clock and Combinatorial are created during the first execution of the Atelier CSSP by a Python script. If they do not show up, your python configuration is probably incorrect.

They all managed to install it on their personal computers during ROME 2025 Summer school in Fortaleza! You should succeed as well.

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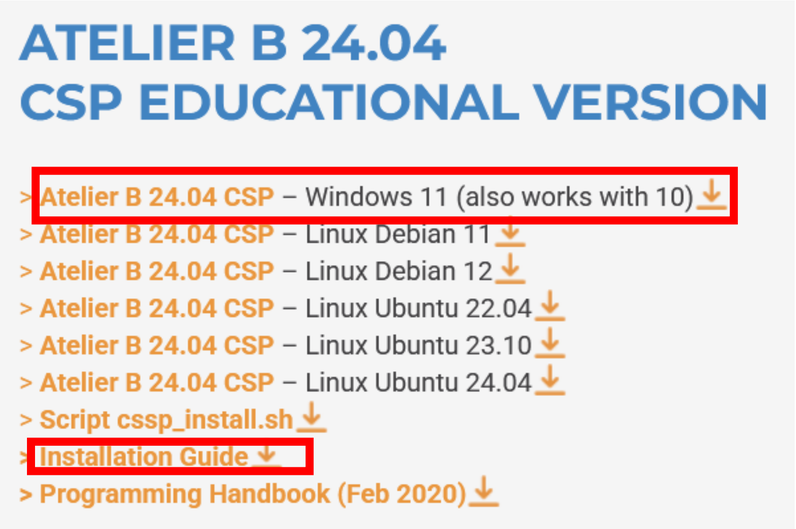
Installation Windows 11

- Install **ATELIER B** 24.04 CSP EDUCATIONAL VERSION Windows
  - Download page: https://www.atelierb.eu/en/atelier-b-support-maintenance/download-atelier-b/
  - Direct link: https://www.atelierb.eu/wp-content/uploads/2024/09/atelierb-cssp-24.04.exe
- Execute the Atelier B installer
- Install **Python** (3.6+) if not yet installed on your computer:
  - Download page: https://apps.microsoft.com/detail/9pnrbtzxmb4z?hl=en-us&gl=US
  - Download page: https://www.python.org/downloads/windows/ (and rename python.exe as python3.exe)
- Install **Cmake**
  - Download page: https://cmake.org/download/
  - Add the cmake/bin directory to the PATH
- Install **MinGW**
  - Download page: https://winlibs.com
  - Select the latest UCRT version with the POSIX
  - Add the mingw64/bin directory to the PATH



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Troubleshooting Windows 11 (Directories)

- When asked to select a directory (install/project), select a directory where you have read/write access. One symptom is the inability to create project or add components to a project.

- Do not use paths with special characters or space

Troubleshooting Windows 11 (Python installation)

- Python is often installed several times on your computer.
- Atelier B CSSP 24.04 requires **python3.exe** and **pip3.exe** to be in the PATH

- Type in a DOS terminal: *where python3*
  - You should get C:\Users\<user>\AppData\Local\Microsoft\WindowsApps\python3.exe
- Type in a DOS terminal: *where pip3*
  - You should get C:\Users\<user>\AppData\Local\Microsoft\WindowsApps\pip3.exe

- You should get the same path
- If not, either change your PATH to point to the correct directory, or copy and rename resp. python.exe in python3.exe and pip.exe in pip3.exe

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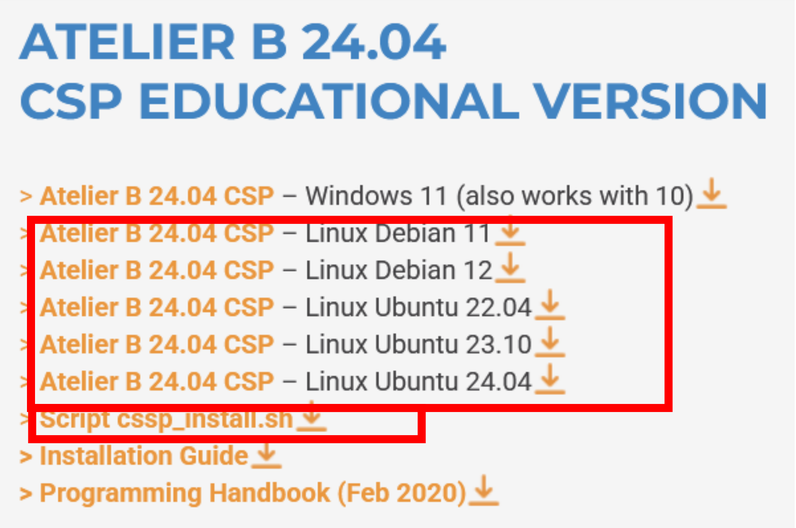
Installation Ubuntu

- Install **ATELIER B** 24.04 CSP EDUCATIONAL VERSION Ubuntu
  - Download page: https://www.atelierb.eu/en/atelier-b-support-maintenance/download-atelier-b/
  - Download the cssp_install.sh script: https://www.atelierb.eu/wp-content/uploads/2024/09/cssp_install.sh
  - Edit the last line of this script to match your distribution
  - Run the script: sudo ./cssp_install.sh
  - To start the tool, execute: /opt/atelierb-cssp-24.04/bin/startAB &



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Troubleshooting Ubuntu

- Do not forget to update / upgrade apt
- Be sure that pip3 is installed
- Be sure that the cssp_install.sh script last line is related to your distribution
-

```
20   echo "Installing Atelier B"
21   apt install --yes ./atelierb-cssp-24.04-ubuntu-24.04.deb
```

Atelier B version

Ubuntu version also available 22.04 and 23.10

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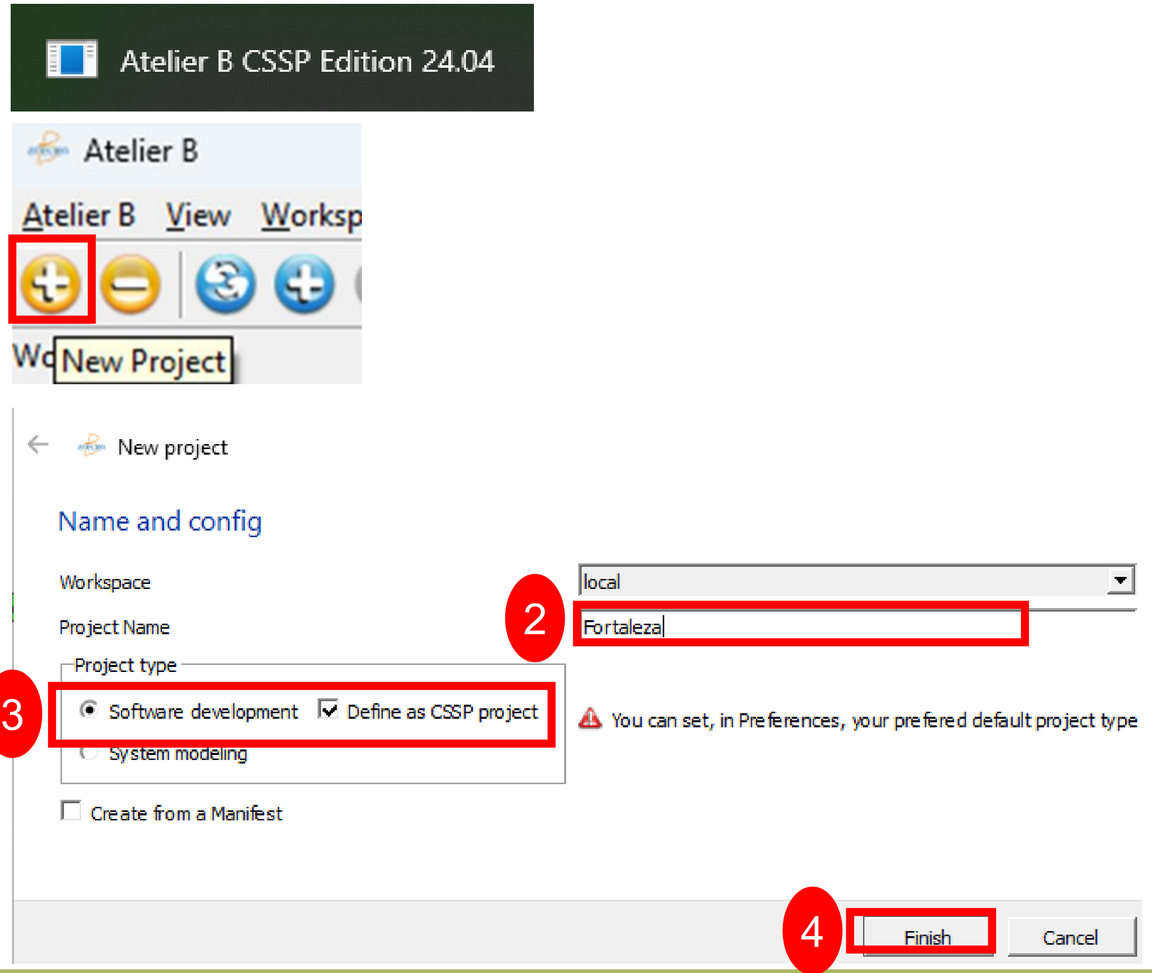
Project Creation

We are going to create an empty project that we will modify to complete exercices

Project Creation 1/3

- Start Atelier B
- Create a new project
- Give a name and a type



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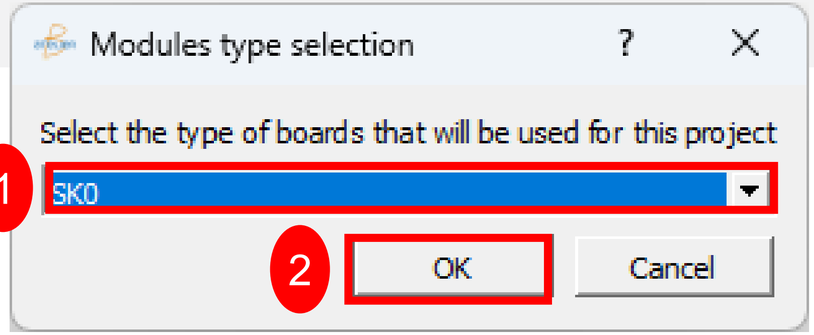
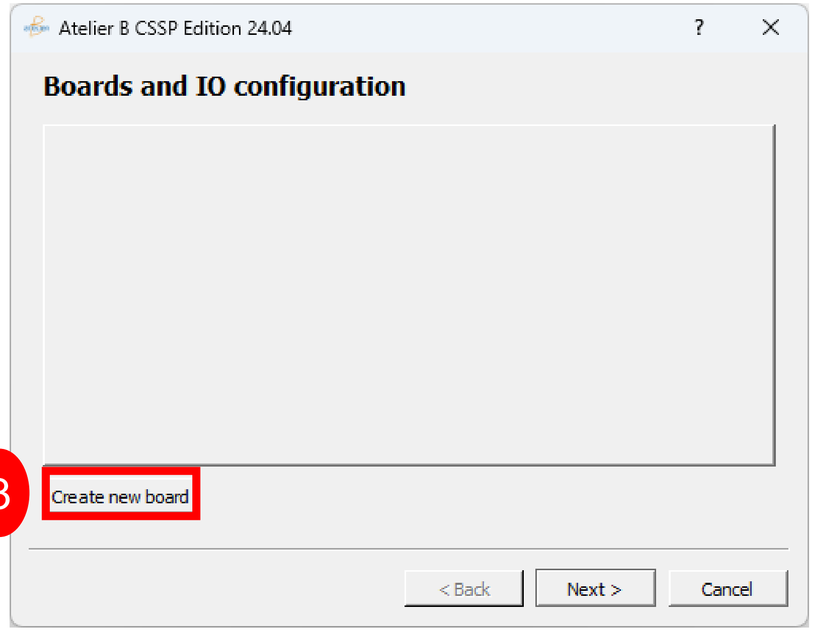
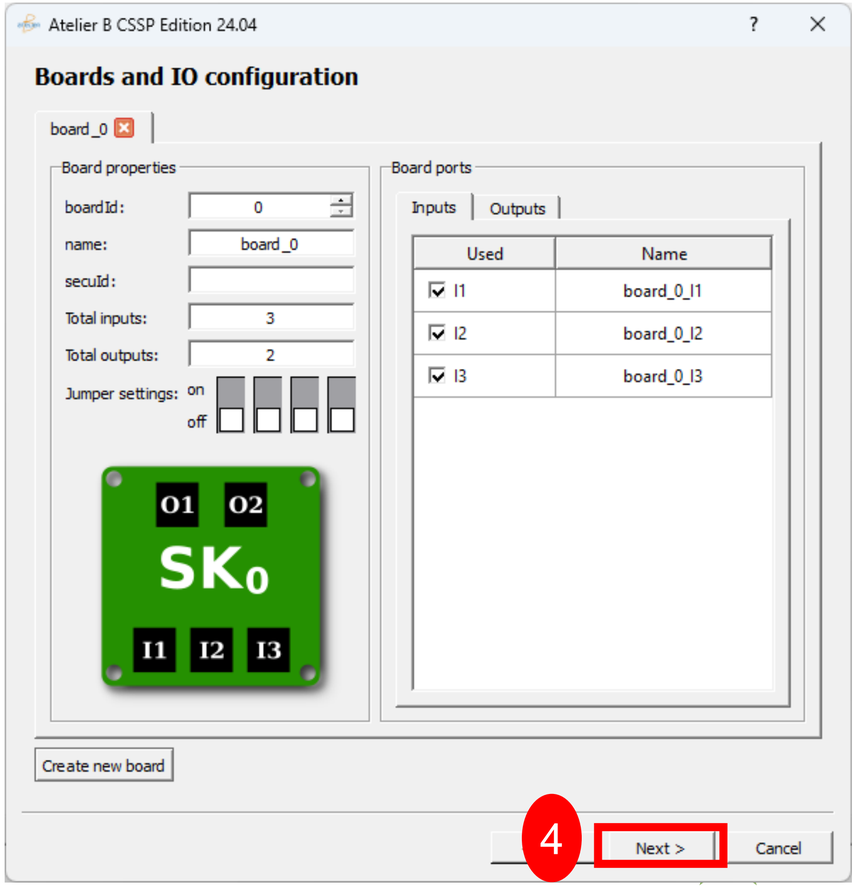
Project Creation 2/3

- Select SK0
- Create a new board







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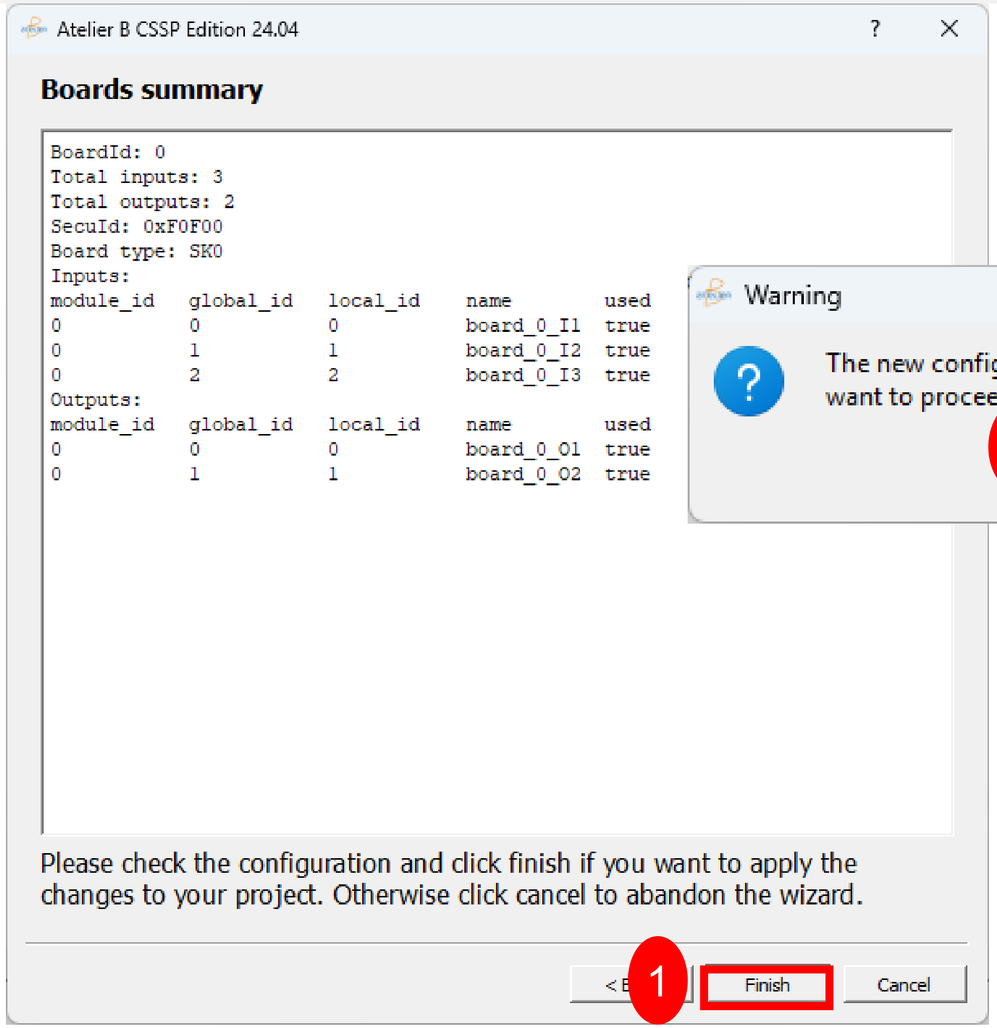
Project Creation 3/3

- Finish the creation



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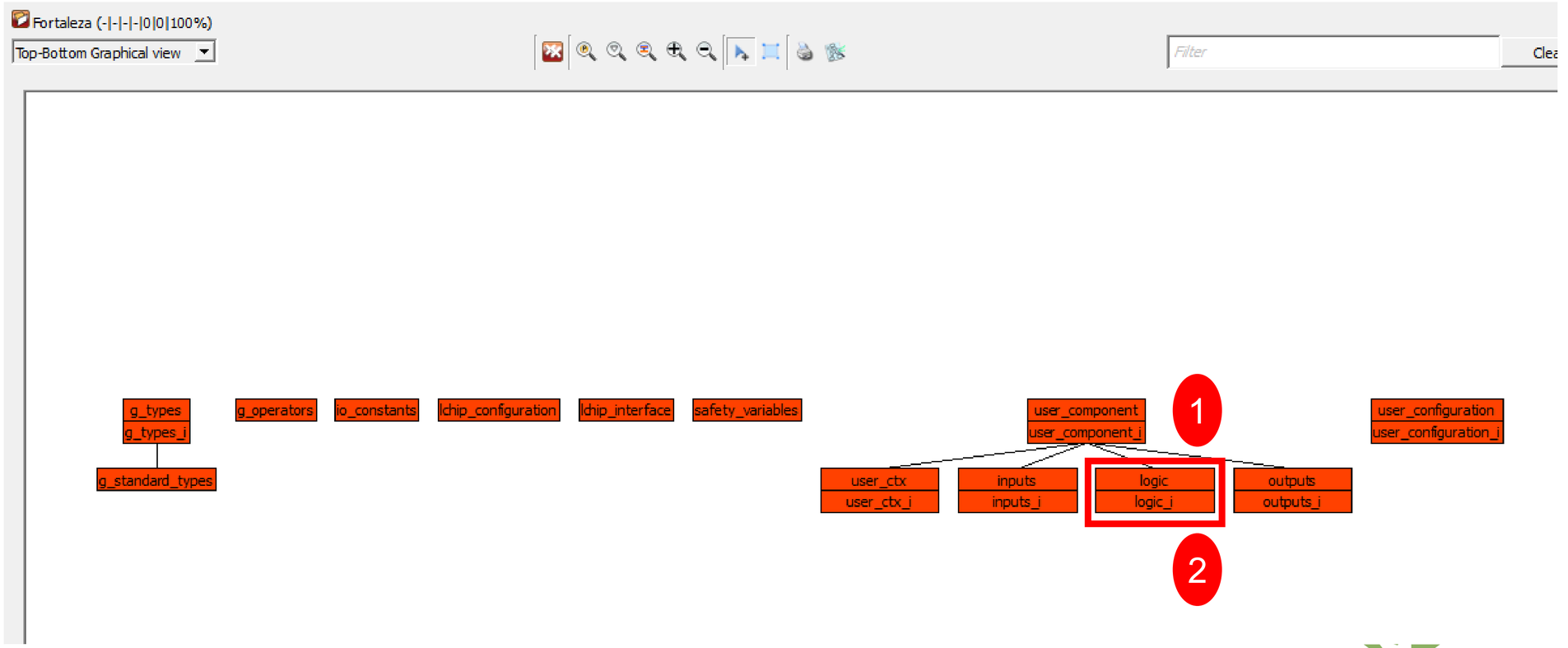
Project Created

- The view
- 2 components to modify

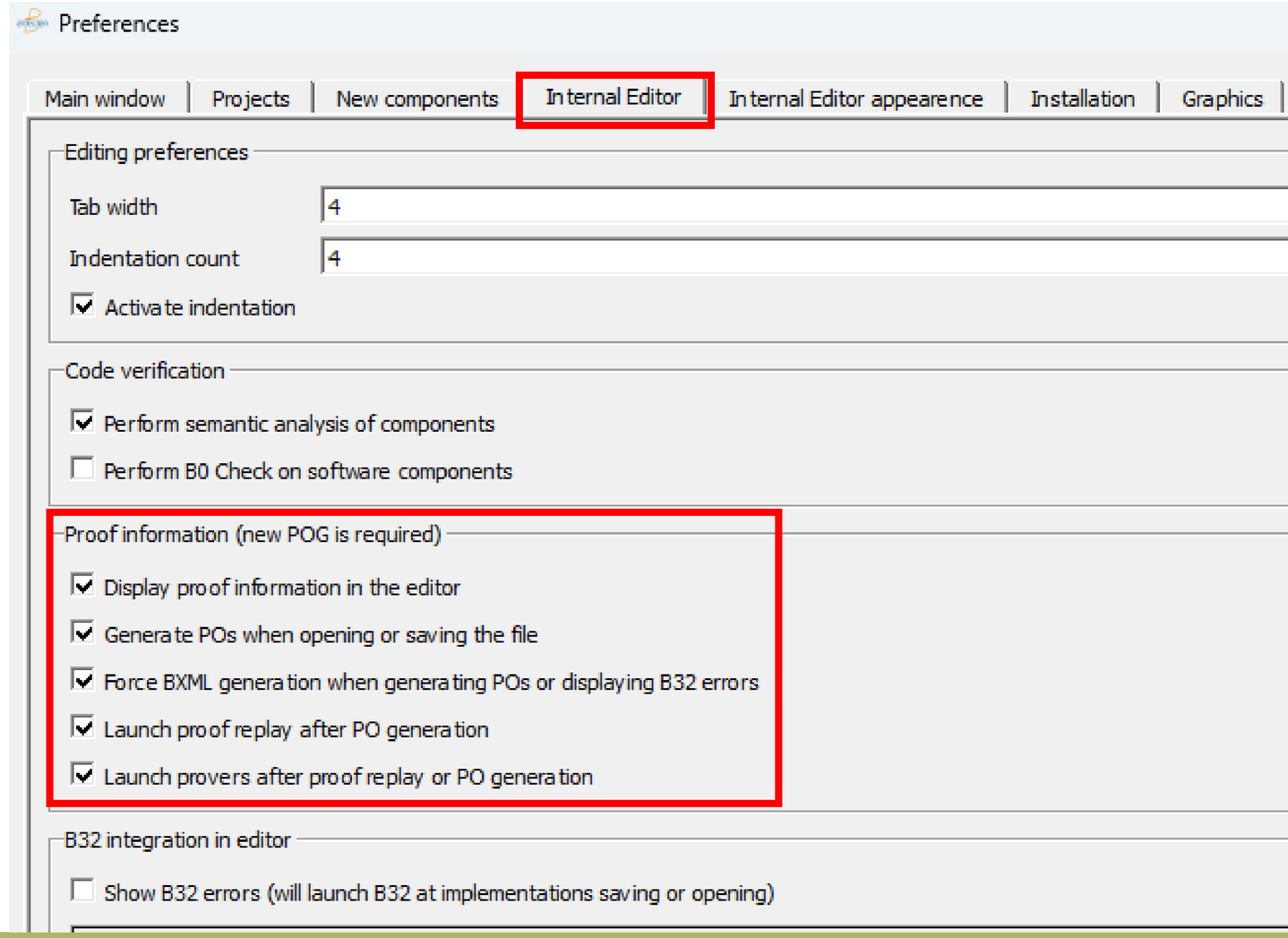


Atelier B and Project Setup

Let us verify
that we are going to see
the same User Interface

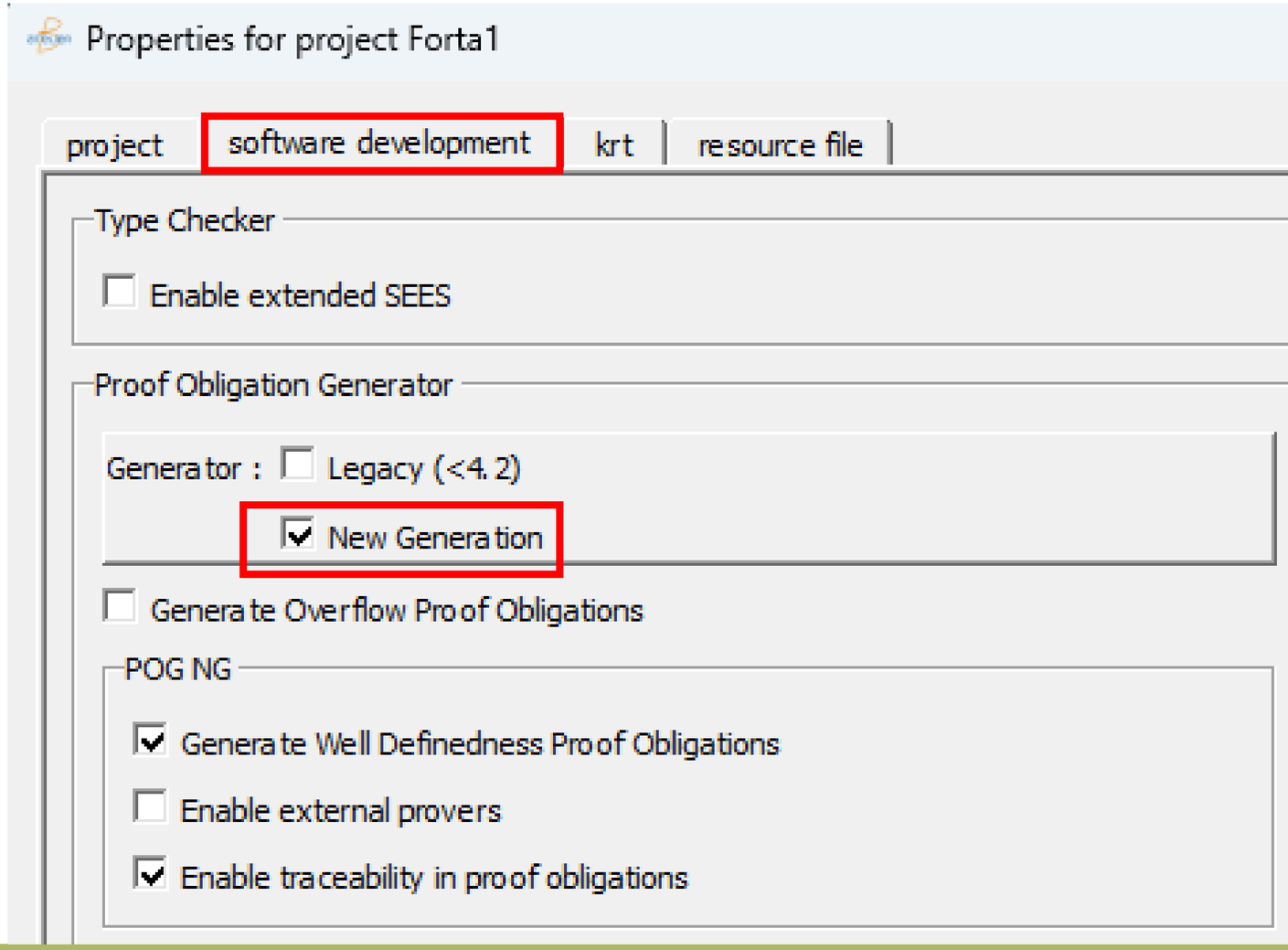
Checking Setup 1/2

- Open menu Atelier B / Preferences
- Select Internal Editor
- Ensure that Proof Information is fully checked



Checking Setup 2/2

- Open your project
- Open menu Project / Properties
- Select Software Development
- Ensure that New Generation is checked in Proof Obligation Generator

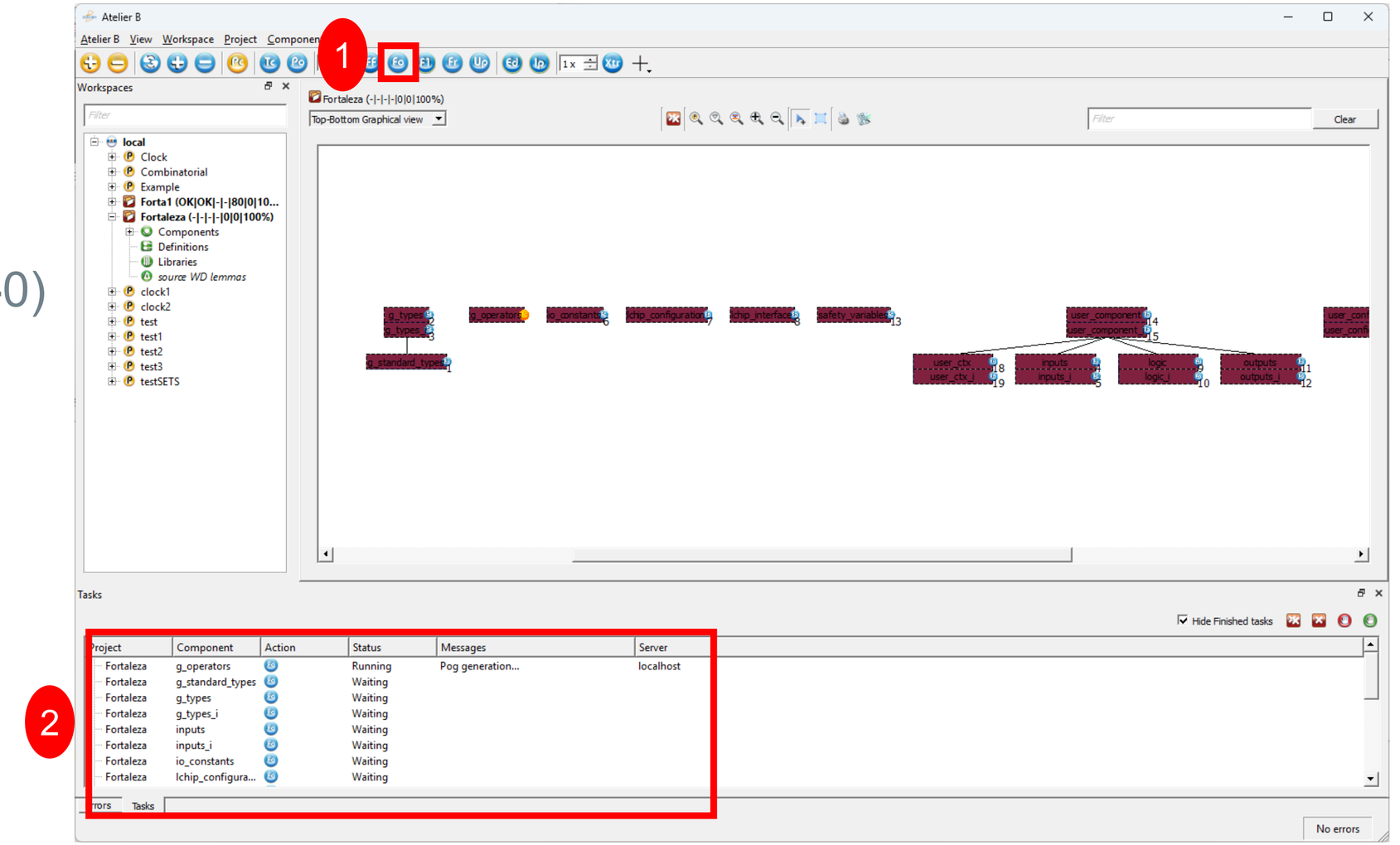


Atelier B CSSP Configuration

Let us verify
that we all can activate the simulator

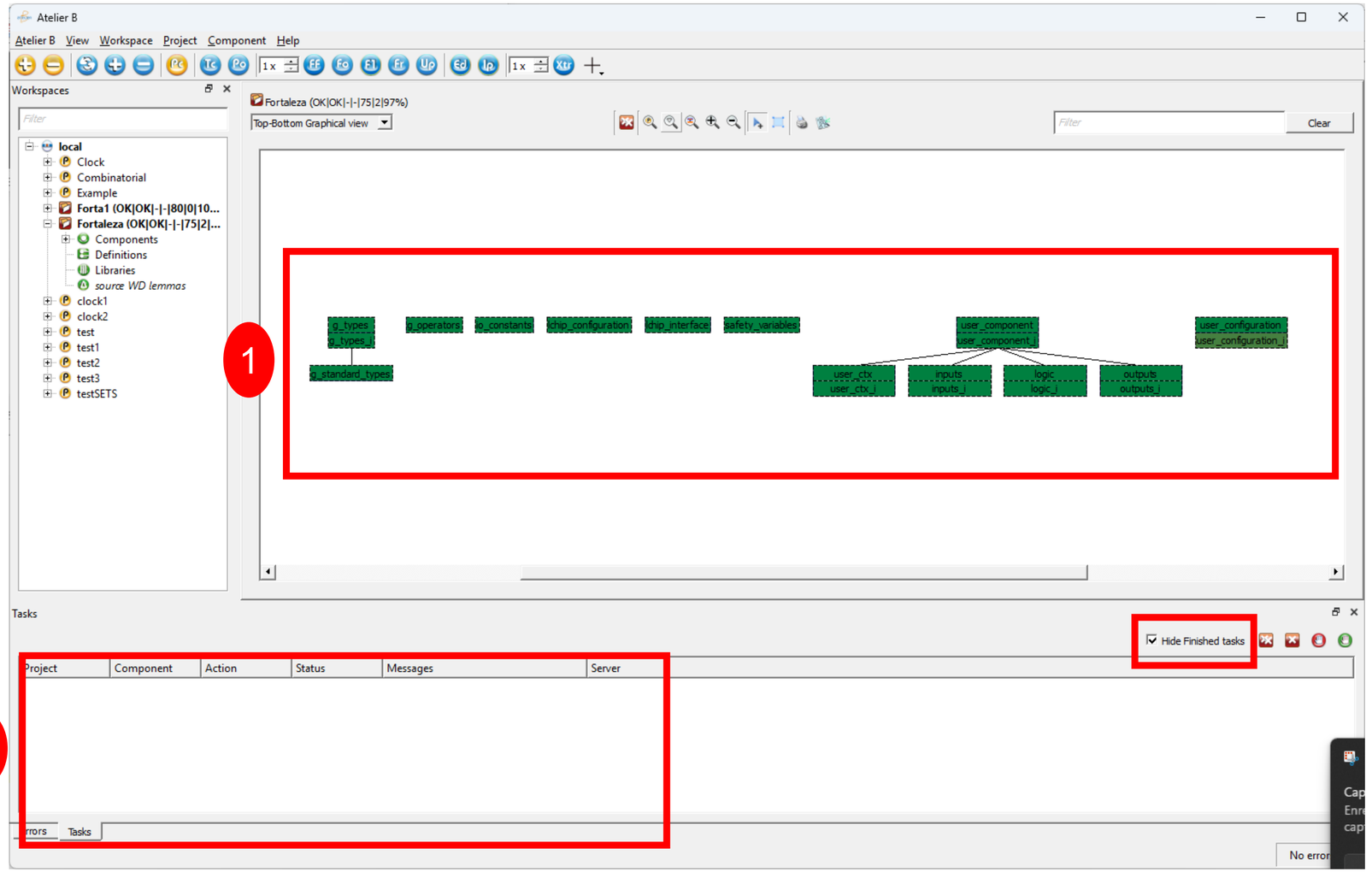
To be sure Your Environment is Operational …1/5

- Select all the components with Ctrl+A
- Start Proof Force 0 (or Ctrl-0)
- Wait for proof to complete



To be sure Your Environment is Operational … 2/5

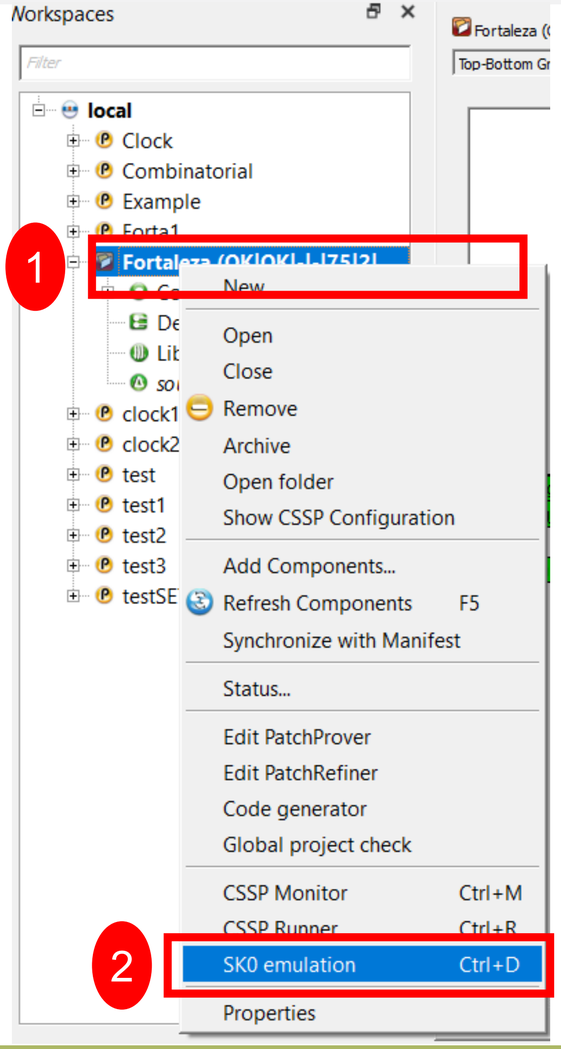
- All components green
- All tasks completed (select “Hide finished tasks”)



To be sure Your Environment is Operational … 3/5

- Right click on the project

- Select “SK0 emulation” or Ctrl-D



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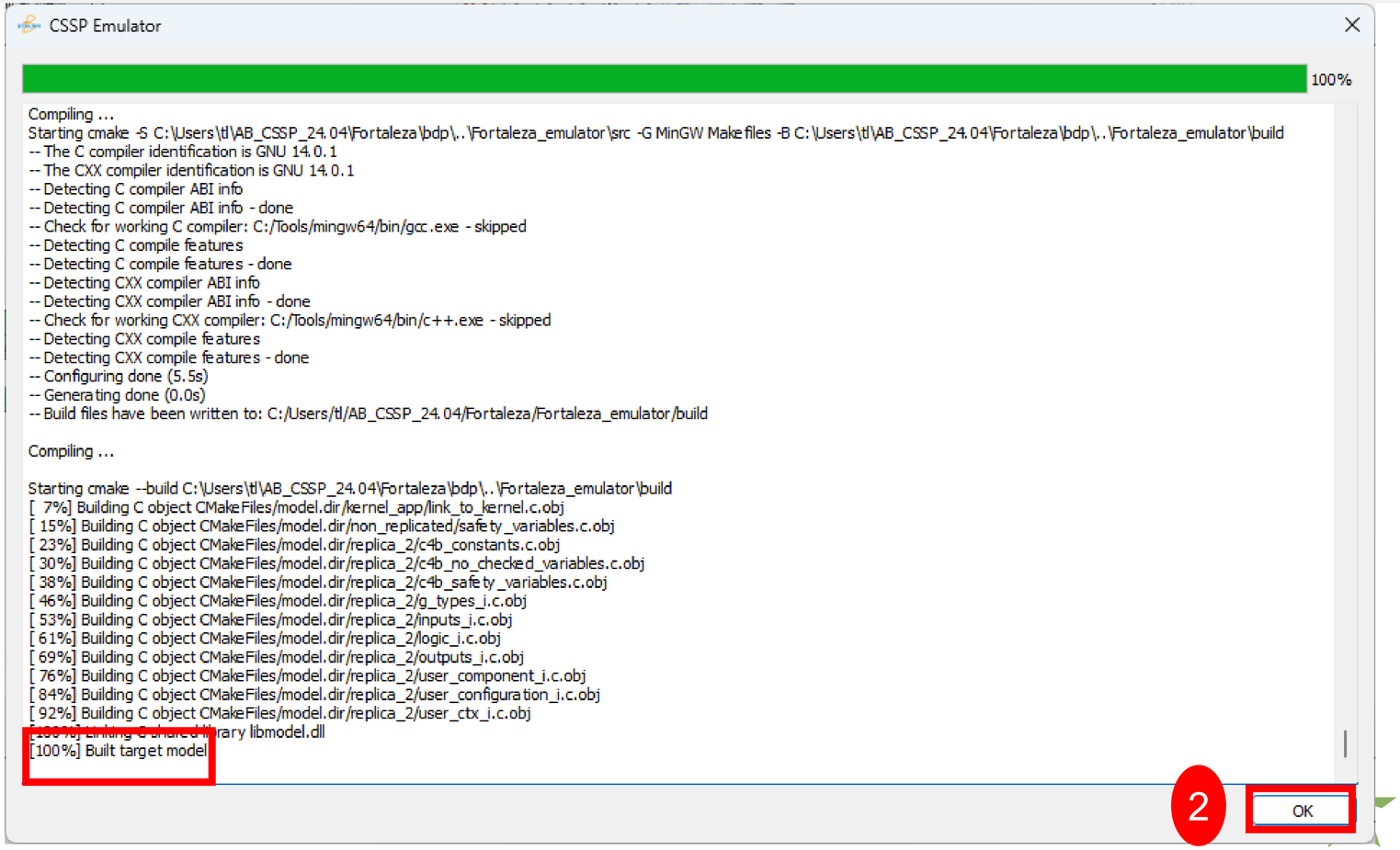
To be sure Your Environment is Operational … 4/5

- After several seconds and verbose messages …
- The process terminates with [100%] Built target model
- Click on OK



If stops before 100%, cmake / gcc installation is probably incomplete

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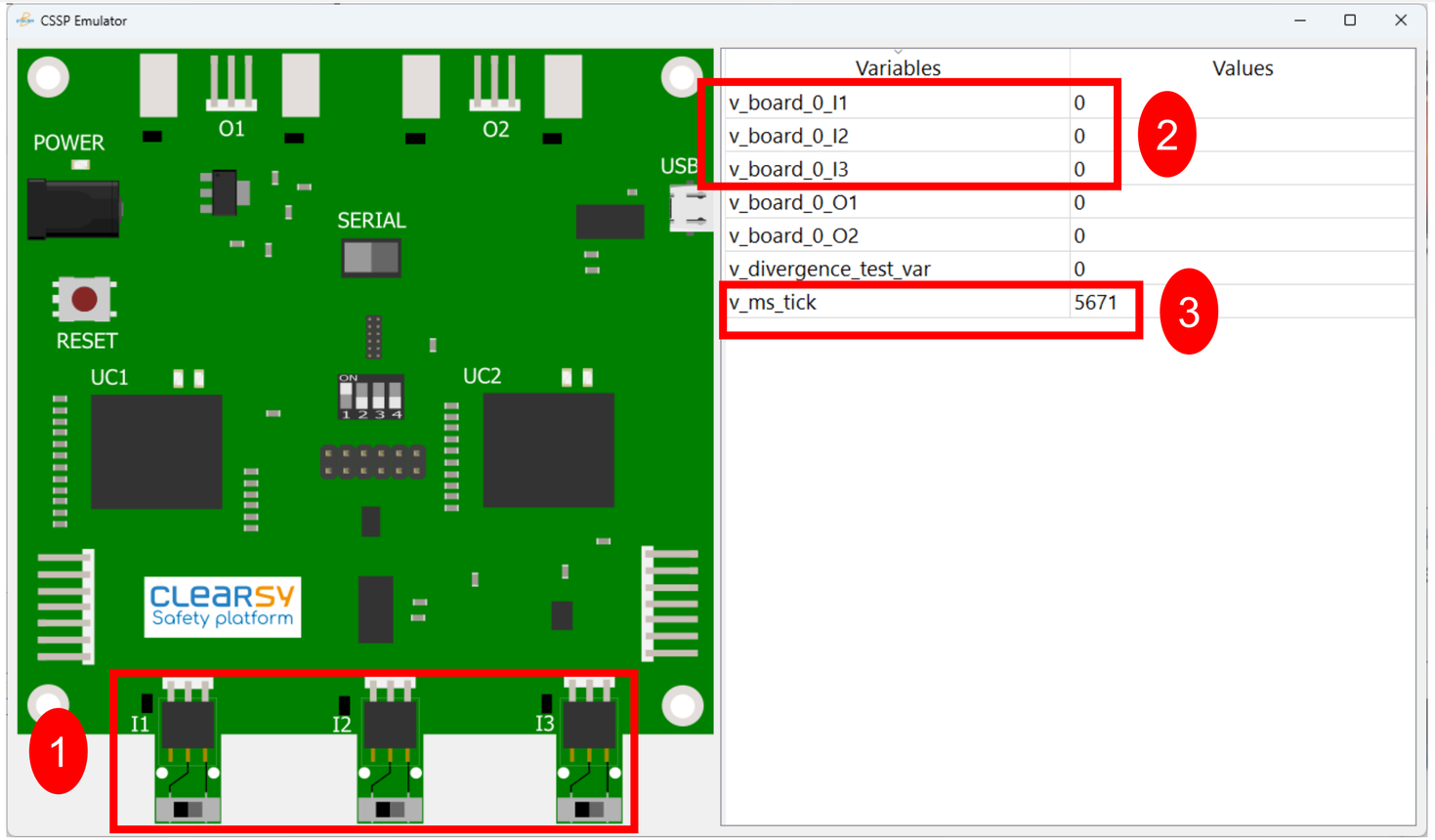
To be sure Your Environment is Operational … 5/5

- The simulator starts
- If you click on I1, I2 or I3, the v_board_0_Ix variables change
- The time flies



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