# **CCLAIR Rapid Evaluation Guide**

So you requested a self-service trial version of ECLAIR for rapid evaluation. The rapidity goal poses requirements on both of us: on our part (1) we delivered the trial version without involving the sales people, and (2) we provide you with this short and sweet leaflet for minimal guidance; on your part, you should (1) familiarize yourself with the assumptions and (2) use your computing skills and imagination.

# **1** Assumptions

We assume that: (a) you have already gone through a preliminary evaluation, so you like the ECLAIR reports available at https://bugseng.com/eclair/reports and the way ECLAIR can be integrated into a CI/CD system as shown in https://bugseng.com/eclair/celairit.com; (b) you know that to be entitled to assisted, full evaluation, just 10 seconds is needed to complete the form at https://bugseng.com/eclair/ free-trial, but (c) you want to rapidly see if ECLAIR works on your physical machine and you want to do that by yourself. We further assume that you know that: (d) ECLAIR trial versions do not work on virtual machines and you need administrator privileges to install them; (e) self-service trial versions do not contain the MISRA C/C++ checkers and the *ECLAIR Bug Finder*; (f) they only last 7 days; (g) you need at least one working compiler and a (preferably small) project that builds with that compiler.

# 2 Installation

### 2.1 Under Windows

Double click on the installer executable (named similarly to ECLAIR\_3.14.0-V-w64W\_Setup.exe) and be sure you execute it with administrator privileges. If you accept the license, you can accept all defaults as well and you are done.

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### 2.2 Under Linux

Obtain a command prompt, then run the installer as the superuser with a command like "sudo ./ ECLAIR\_3.14.0-V-164W\_Setup.run". If you accept the license, you can accept all defaults as well and you are done. Change the PATH environment as recommended by the installer for your convenience.

# 3 Static Analysis with the eclairit Driver

ECLAIR can be used in many ways (its GUI, from within IDEs, integrated into CI/CD pipelines) and it is fully scriptable. However, exploiting this generality requires reading at least a little bit of documentation, which may not be as rapid as you want. This is why we have a simple ECLAIR driver program called eclairit. All what you need to use it is some C/C++ code that you are able to compile on the machine you are using to evaluate ECLAIR. Let us say that, in order to compile (and, possibly, link) your code, you use the command <F00>. For example, <F00> can be "build\_all.bat" or "cl /c p.c" or "make" or "gcc -m32 q.c", or anything like that, provided it successfully compiles (and, possibly, links) your code. Then obtain a command prompt and do

\$ eclairit -- <F00>

The eclairit driver will do lots of tests in order to provide accurate diagnostics (e.g., it will actually check that  $\langle$ FOO $\rangle$  works), so be patient. When the analysis is finished, your default web browser will open the main page containing the fully detailed ECLAIR analysis results. In view of *Assumption (a)* above you are already familiar with that page. It is now time to see some documentation for eclairit, hence do

\$ eclairit -h

This way, you will discover that your code has been analyzed with respect to a selection of BARR-C:2018 guidelines and also that the eclairit driver, though very simple and, consequently, quite rigid, can do more. Play with it, but do not forget about the *Assumptions* above. By the way, eclairit is a script: feel free to change it to suite your needs.

Furthermore, note that self-service trial versions do include the ECLAIR native GUI, as well as the IDE plugins, and all what is required to use ECLAIR well beyond the eclairit simple driver: just open the *ECLAIR User's Manual* to know more.

# **4 Requesting Assistance During the Evaluation**

Best-effort technical assistance during rapid evaluation will be provided via email: just write a message to rapideval@bugseng.com using the *same email address* you used to obtain the installer. Do include all details about: your setup, what you are trying to achieve, what you expected to happen, and what happened instead. In case of doubt, add more details.

Note that there is always the option of requesting assisted, full evaluation: just fill the simple form available at https://bugseng.com/eclair/free-trial and we will be back to you at the earliest.

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