

Term Project

Project Description

Your task is to formally specify and verify a C program/function of your choice using Frama-C with suitable plug-ins. You may submit a proposal to get an assessment of the adequacy, in terms of a base score (out of 100), of the program you choose to tackle. The base score is the least score you will receive if you specify the program adequately (showing its main functionality) and successfully prove its correctness.

The final results, including an annotated C program and perhaps other complementary files, should be packed as a single .zip file for submission.

Due Times/Dates

2:20PM December 13 (Friday) Proposals
2:20PM December 27 (Friday) Final Results

All submissions should be made by emailing to the instructor (tsay@ntu.edu.tw). You may submit up to three proposals. A proposal submitted late will be ignored and hence will not receive any feedback. Late submission of the final results will be penalized by 20% for each working day overdue.

General Requirements

It is up to you to choose the particular versions of Frama-C and required plug-ins. In case that the completion of your work cannot be verified by the instructor, you may be asked to do a demo.

Grading

Your work will be graded mainly according to the difficulty and the completion of the chosen verification task. However, cleanly written and organized assertions are always a plus.