

# Trusted Components

## Winter Semester 2006

### Project Description

The goal of the project is to program and evaluate trusted components.

The project consists of 3 different parts:

- The design of an API (30% of the grade).
- The code of a library (35% of the grade).
- The testing and quality assessment of another student's library (35% of the grade).

#### APIs and Libraries

Develop a set of Eiffel classes that offer good abstractions for **arbitrary precision integers and fractions**. Integers of any size should be available to programmers as well as fractions of any precision. Regular arithmetic operations should be available to the programmer as well as documentation.

The library and its documentation should be available for **Wednesday 3 January** in the svn repository that each student has (if your svn repository was not created please send a message to [moriol@inf.ethz.ch](mailto:moriol@inf.ethz.ch)). You are highly encouraged to use the repository throughout the whole development of the project. If you produce test cases (either manually or automated) put them in the repository as well.

#### Testing another student's library

Assess the quality of the project of another student. Any assessment method that was described in the course can be used (e.g design rules, analysis abstraction, architecture abstraction, comprehensive test cases...). The goal is to have an assessment that is made through code reviewing, code testing, and/or code processing. The modalities of the project's choice will be given later.

All the findings should be indicated in a report that should be usable as a quality assessment document. In particular, it should contain at least the test cases used to reproduce potential problems and explanations of the problems.

#### Deadline

Your report as well as the test cases should be placed in your svn repository before **Wednesday 25 January**.

Good Luck!