



Sebastian Hack
Christoph Weidenbach

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**Tutorials for “Advanced C”
Exercise sheet 6**

Download the tarballs `pbqp-solver.tar.bz2`, `test.tar.bz2` from the course website.

The first contains a solver for so-called *Partitioned Boolean Quadratic Problems (PBQP)*. The second one contains test input data of different sizes for the solver.

You can run the solver on an input data set (one of the files in `test.tar.bz2`) with following command (do not leave out the `h` at the end!)

```
./pbqp_solve filename.pbqp h
```

Exercise 6.1: (4 P)

Depending on the input size, the solver has two regions where it spends most of its time. Use a profiler (or more than one) of your choice and examine runs of the solver on the given test data. Where are the regions where the most time is spent?

Exercise 6.2: (6 P)

- How can one of the time-consuming regions be accelerated? (2 P)
- Implement your proposal by modifying the solver (4 P)
Add a subdirectory `ex6` and all the relevant files of `pbqp-solver.tar.bz2` to the SVN.

Submit your solution until the lecture on December 02.

Note: Joint solutions are not permitted.