## Project Documentation and Submission Guidelines

CPSC 629 Analysis of Algorithms
Andreas Klappenecker

You should submit your project on Thursday, November 14, 2002, before 11:59pm. Please e-mail your gzipped tar file to Mr. Yueping Zhang (his e-mail address is `yueping @ cs.tamu.edu` without spaces).

The grading of your program will include, among others, the following aspects: the packaging of your program, the correctness and clarity of your program, the quality of your documentation, and the completeness of the test data.

- Send your program as a gzipped tar file named
  `YourFirstname_Lastname-VersionNumber.tar.gz`
  Unpacking this tarball should create a directory of named
  `YourFirstname_Lastname-VersionNumber`
  Please replace `YourFirstname` by your given name and `Lastname` by your last name, as shown on the roster.

- After entering this directory, we should be able to build your program by typing `./configure` and `make`. Assume that a local copy of the library is available above your directory. Please include

  ```
  INCLUDES = -I../
  aks_LDFLAGS = -L../
  ```

  or the like in your automake file `Makefile.am`.

  We will test your program on a departmental server such as dogbert and on a windows/cygwin combination.

- Follow the guidelines of the gnu build system. The file `README` should include your **e-mail** address, and **instructions for the installation** of your program. This file should not contain the documentation of your program.

- Your program should be called `aks`. The parameters should be
  `aks [--verbose] integerA and integerB`
  The output of `aks 2 5` should be

  ```
  2 is prime
  3 is prime
  4 is composite
  5 is prime
  ```

- Make sure that your program is nicely organized, and that unused code is deleted. Provide comments within the source code that help to understand the logic and organization of your program.

- Provide a separate documentation in `doc.dvi`. The documentation should be written in LaTeX. The file `doc.dvi` should be derived from a latex file `doc.tex`, which you do not need to include. [We once again train the usage of LaTeX, so that you can quickly produce journal papers with the style files provided by the publishers.] The documentation should highlight the technical features of your program.

  In particular, you should highlight the main features which make your program fast. Explain all algorithms that you have used (explain, for instance, how you have realized the evaluation of $(x-a)^n$, etc.). Justify your design decisions, in particular if your implementation deviates from the plain aks algorithm that we have discussed in class.

  The documentation does not need to be excessively long. It should be concise and accurate.

- You should provide one data files `test1` that you have generated as follows:

  ```
  aks 2 2000 > test1
  ```

  We will ask you to provide more test data with timing measurements next week.

- You can find additional information on the aks project home page.

- You will have to visit the TA in the lab in HRBB 219 on Friday to demonstrate your program. Email him to make an appointment.