Grading Ecosystem – Spoj0 Integration



# Introduction

The purpose of this document is to outline the integration of the grading ecosystem with the spoj0 grader. Currently Spoj0 supports Java and C/C++ as programming languages being judged. All problems are being graded in ACM style meaning that there is a single result output based on all of the test data (accepted/wrong solution, runtime error during a test execution, time limit during a test execution).

# Spoj0 Design

## Data Model

Spoj0 stores problem sets in a directory tree with the following structure:

sets (top level folder storing contest data)

<set-code> (problem set folder)

[set-info.conf -- for automatic import of a set]

<problem-letter> (problem folder)

test.in (input data)

test.ans (the correct answer)

[solution-<something>.{c,cpp,java}]

[problem-info.conf]

[checker]

## High Level Design

The overall design of the system is pretty simplistic.

=== spoj-deamon ===

\* Running as a deamon.

\* Checks for unjudged runs.

\*\* Find a run, mark as judging.

\*\* Test it, write the result.

\* logs many things in a big log file

=== spoj-grade ===

\* invoked as: spoj-grade <source-name> <lang> <time-limit> <input> <answer>

\* stdout contains the status (ok, wa, ce, ...)

\* stderr (or other log) contains

=== Tools ===

\* spoj-import -- to automaticaly import

\* spoj-rejudge -- to redjudge a run, or many runs

\* spoj-submit -- to maual submit a solution

# Extensions

# References

<http://dev.mysql.com/downloads/>

<http://www.activestate.com/activeperl/downloads>

<http://www.epic-ide.org/>