

SEARCC INTERNATIONAL SCHOOLS' SOFTWARE COMPETITION 2011

RULES AND REGULATIONS

PREAMBLE

These Rules are derived from those used at the previous ISSC. Any deviations forced by the equipment and software in use will be advised to participating SEARCC members as soon as they are known and will be published on the SEARCC web site.

GENERAL

1. Each country will be allowed to send a maximum of **two** teams with **one** chaperon. Each **team** may consist of up to **three** school students. Registration must be done (using Annex C) through the respective country's computer society, from where it will be forwarded to the host Society for the SEARCC Conference. Once the registration is accepted the organisers will be communicating directly with the chaperon. In case of a need to limit the total number of teams participating, only the first team of each country will be selected.
2. All team members of school teams must be **full-time students** under **eighteen years of age** on 1st January 2011 (that is, born on or after **1st January 1993**).
3. The competition will be **two** (2) hours in duration, consisting of **four** (4) programming problems. Problems will be set in English. For a solution to be judged as correct, it must display the correct results as prescribed in the problem description when a set of competition data is processed by the judging program. In addition the results must be displayed on the monitor according to the specifications in the problem description. Final results are evaluated by the scoring system described in Rule 27.
4. The programming languages to be used will be **C or C++ or Java**.
5. Challenges or appeals regarding the statement or solution of problems, configuration or operation of workstation, or any other matters, may be submitted in writing through the chaperon to the chief judge, but not after expiration of the first thirty minutes after the end of the competition.

WORKSTATION AND RESOURCES

6. A team's workstation will consist of an IBM compatible microcomputer running Windows XP Professional Pro with hard disk drives, keyboard, mouse and network connection. All workstations will be configured identically. There will be four program submission sheets, printed document of the rules and regulation, together with paper for rough work near your machine. The teams are responsible for maintaining backup copies of their solutions and save the work frequently in the working directory to avoid loss due to power failure and other unforeseen circumstances. The use of USB drives will not be permitted. Judges accept solutions (programs) online to the specified Directory. From the stated Directory, Judges copy the submitted programs to their local Directory.
7. Do not take any material inside the competition area without the permission of the Judges. Drinks/Snacks are not permitted inside the competition area but are provided in the reception area.

8. During the first **one** hour of the competition, teams may ask for clarification of problem descriptions (and are encouraged to do so) only from the official judges. Such request should be submitted in writing. Answers will be limited to **`Yes'**, **`No'** or **`No Comment'**. Please phrase your questions accordingly. Judges responding to questions will not compromise any part of the solution or clarify beyond the written description without providing the same information to all teams as close to simultaneously as possible.
9. Teams should use only the resources of the workstations and the standard software. Additional help, any form of machine-readable material, or other resources are not permitted.
10. Printouts of programs will be available during the competition from printers provided in the printing area.

ANNOUNCEMENTS

11. The keyboard will be placed on top of the monitor and the problems will be under the keyboard. **Do not touch the computer or keyboard until we announce START.**
12. During the competition, any changes or corrections to the problems may be announced, and such corrections will be given in written form.
13. At the end of the 2-hour period a judge will announce **STOP. Please stop work immediately and place your keyboard on top of the monitor.** The only exception to this is if you have been awarded additional time to compensate for machine failure.
14. At the end of the competition, the four program submission sheets will be collected.

SELECTION OF PROGRAMMING LANGUAGE

15. Teams may choose to write their programs in any of the programming languages offered. Teams are allowed to solve one problem in one language and other problems in other languages offered. The input and output operation will be kept simple, allowing them to concentrate on the problem solving aspects. No special features of the programming packages are needed, nor should they be used. In particular, the following features will NOT play a role in the programming tasks, and are strongly discouraged
 - graphical output
 - mouse input
 - advanced file manipulation
 - advanced numeric processing
 - OS calls
16. Teams should be familiar with the programming package of their choice, including the use of libraries.

INPUT AND OUTPUT DATA

17. Input will be from simple text files. Output will be to a file.

SUBMISSION OF SOLUTIONS

18. Programs submitted to the judging station must contain the correct label as allotted to each Teams.
19. Each program submitted for judging must be accompanied with a completed program submission sheet for each problem (see Annex A). On the submission sheet, judges will log the submission time and provide feedback if the solution is incorrect.
20. The judges retain submission sheets when a problem is solved correctly and the team will be notified that their submission has been successful. When the competition is over, all remaining submission sheets must be handed in to the judging station.
21. Teams must adhere to specific instructions (see Annex B) regarding:
 - a. filename of programs ;
 - b. output of results ;
 - c. the other instructions which make the programs uniformly compatible with the needs of judging station.

JUDGING

22. Team members (or any other unauthorised personnel) are not allowed in the judging area. Failure to comply with this ruling could result in the team being disqualified from the competition.
23. For each problem, several sets of confidential judging data will be used by the judges. Any correct solution is expected to process all test data sets and produce the correct output. The same sets of test data will be used to test the solutions from all teams submitting each problem.
24. Solutions must execute on the judge's workstation in 30 seconds (unless otherwise specified) of the clock time with any judging data set. Problems will be constructed so that a reasonable solution will meet this requirement using the competition data.
25. For a solution to be judged as correct, it must produce the correct result as described in the problem description when any set of judging data is processed by the judges.
26. **Feedback** for a bad run/submission will be given with one of the following comments on the Program Submission Sheet. Only the **first** error encountered will be indicated.
 - a. **TOO MUCH TIME**
Execution took longer than 30 seconds (or other specified time).
 - b. **NO OUTPUT**
Nothing appeared on the screen from the program execution within 30 seconds or other specified time).
 - c. **TEST DATA FAILED**
The program displayed incorrect results.
 - d. **ERROR OCCURRED**
The operating system, interpreter or compiler detected an error.

- e. **BAD OUTPUT FORMAT**
The display was not formatted exactly as prescribed.
- f. **IMPROPER SUBMISSION**
Directions were not followed. Examples – incorrect filename, wrong submission sheet or wrong program format

SCORES AND PLACING

27. A team's score will be the sum of points awarded to each problem either solved or attempted by the team.

The point system for a competitor is as follows:

- a. **One hundred** (100) points will be awarded for each solution judged as **correct**. No points are awarded for solutions that are incomplete or inaccurate.
- b. Teams will be awarded a **bonus** of **one** (1) point for each **five** (5) minute period, or part of such period remaining when the solution is submitted to the judges (i.e. a problem submitted within the first five minutes and judged as correct earns a maximum time bonus of 24 bonus points). A problem submitted in the last five minutes and judged as correct earns 1 bonus point).
- c. Each submission that is judged **incorrect** for any reason specified in 26 above will incur a **penalty** of **ten** (10) points (i.e. minus 10 points) regardless of whether the problem is eventually solved or not.
- d. The placing of the teams is determined by the scores obtained. Should there be any **tie** in the scores, the placing is determined by applying following criteria in sequence:
 - number of **problems** solved;
 - the **time** when the last solution was submitted.

The judge's decision will be final in any matter. Any changes to these rules will be notified to all registered teams before the competition.