



## RULES AND REGULATIONS

1. The contest organizers will have final say in the interpretation of these rules and in the ruling of any unforeseen eventualities.
2. Teams will consist of four students of junior or senior undergraduate level majoring in computer science or information systems. Up to two teams are permitted per university department. Students must be majoring in the department their team represents and cannot compete at the Digi-Key Collegiate Computing Competition more than two times.

The computers used will be standard PCs operating Windows XP Professional.

The C++, C# and Visual Basic languages will be available in Microsoft Visual Studio .Net 2005 Version 8.0 with MSDN.

Java is also available using Java JDK 6.0 (<http://java.sun.com/javase/downloads/index.jsp>) with Java API documentation. The Java editors that will be available are JEdit 4.3 (<http://www.jedit.org/index.php?page=download>) and Eclipse 3.4 (<http://www.eclipse.org/downloads/>).

3. Contestants must use the computers and languages provided. They may not bring their own hardware or software. Competitors are expected to be familiar with the software provided. No assistance will be given on how to use the software.
4. Contestants may bring calculators, books, manuals and notebooks to the competition.
5. Contestants cannot consult with a faculty advisor or another team during a competition session.
6. Contestants may not use portable electronic devices such as cell phones or PDAs during a competition session.
7. If a team has a question regarding a problem, one member of the team may ask that question to a panel of competition judges.
8. Time remaining will be announced when there is 30 min., 5 min. and 1 min. left in the session.
9. Once time is called, all contestants must stop typing or writing. Any team that continues working after time has been called risks losing all points for that session.

## **The Programs**

Programs will be scored on output only. All programs should be written to read from an input file from a determined directory and write results to an output file. Both the input and output file names will be specified with each problem description.

A test input file for each programming problem with two example test cases will be copied to your team computer prior to the start of each programming session. You may use these files to test your programs.

At the end of each computing session, DKC<sup>3</sup> judges will overwrite the test input files with the official input files for each problem. Each file will contain 10 test cases. One member of each team will be asked by a competition organizer to run all completed programs. Programs may be recompiled at this point prior to being run, but no changes can be made to source code. The output files will be retrieved electronically and scored by a panel of judges.

## **Scoring**

Scoring for the competition will be based on three sessions (see itinerary). Two of the sessions will involve problems that must be solved by writing computer programs. One session will involve problems to be solved on paper.

For computing problems, points will be given for each test case for which a program gives the complete correct output. Points for each test case will vary depending on the number of total points the problem is worth. Each program must complete execution within two minutes. Any program with a run-time exceeding this time frame will be aborted. It is the team's responsibility to ensure the programs read from the input files correctly. If a program will not execute or does not generate an output file, no points will be awarded for that problem.

For written problems, points will be given for complete correct answers. No partial points will be awarded. The point value of each problem will be listed with the problem descriptions.

## **Tie Breakers**

In the event of a tie, an additional written problem session will be held. Each competitor will be given a set of short problems to solve within two minutes. This is an individual session and competitors will not be allowed to consult with other teammates. Individual scores for each competitor will be added up for the final team score.

Scoring for the tie breaker is as follows:

- Each correct answer: 1 point
- Each incorrect answer: -1 point
- Unanswered problem: 0 points

## **DIGI-KEY PREMISES**

Digi-Key is a secure building and requires visitors to be escorted by a Digi-Key employee at all times. ID cards must be worn around the neck, or on the shirt collar or pocket while in the building.

No smoking or use of tobacco/snuff is allowed at any time during the competition. This includes breaks and lunch.

When walking through office areas, please keep talking to a minimum as Digi-Key representatives are on the phones with customers.

## **DRESS GUIDELINES**

Dress for the competition is casual. For instance, jeans and tennis shoes are acceptable; however, hats, shorts and faded/torn jeans are not. We ask that competitors use common sense and consider what is appropriate for a business environment when choosing their attire.