NATIONAL INFOCOMM COMPETITION

Fact Sheet for VIRTUALXGAME Challenge

The VIRTUALXGAME (VXG) Challenge is proud to be part of the National Infocomm Competition (NIC) 2007, operating in the Junior College and Poly/ITE circuits.

Synopsis

In NTU's VXG challenge, competing teams pit their coding and problem solving skills against each other in a computer game contest. The contest consists of three tournaments; each tournament comprises a 10+ of rounds; and each round has up to five teams. The teams battle for supremacy of a virtual battleground using virtual combatants, that are defined and operated by software programmed by the competing teams. The fighting and survival characteristics of the virtual combatants are of each team's choosing and ingenuity. The virtual combatants with the best mix of characteristics and the most robust code structures will emerge as the victor.

The real-time progress of each team in each round, e.g. how many kills are made and how much territory is captured, are translated into points by the game software, and both (progress and points) are displayed to the audience (contestants and spectators) using a large screen and projector. The team ranking is calculated by the software, from the total number of points accumulated in all the rounds that the team participated in.

The teams program their virtual combatant software from assigned workstations distributed on the contest floor. At each workstation, each team has access to only one PC. The programming language for the game software is Java, and the development environment is Eclipse.

Target Participants

Each competing team will consist of three contestants and one coach, where the contestants are students and the coach is academic staff. Since there is only one PC per team, it is suggested that only one member of the team need be a Java programmer; the other two can focus more on combat strategies and game play. NTU is expecting 30 teams (a mix of both circuits, JC and Poly/ITE) to participate.

Walkthrough of Events Schedule

After the opening ceremony and contest instructions, the teams will move to their workstations to program their virtual combatants. While they are doing this (duration three hours), spectators and coaches will be treated to a tour of the interesting facilities in the School of Computer Engineering. After programming, the teams will submit their code for display in the first tournament. Following lunch, the teams again move to their workstations, this time accompanied by their coaches, to improve their combatants' strategies. A second tournament is held, after which, the teams (again with coaches) are given one last chance to improve their code. The final tournament is run, and the points from all three tournaments are tallied to produce the team rankings. Prizes are handed out to the top three teams in each circuit; additionally, some fun awards will be made to a few select deserving teams. From start to finish, the contest will take just one day to run.

Rules and regulations

- There will be first, second and third prize winners in each circuit. A few additional awards will be made for other performance achievements, e.g., highest score in a single battle, in each circuit.
- If there is a tie between any of the first, second and third team placings – as determined from the point totals earned in the three planned tournaments – a tiebreaker tournament will be conducted. The tiebreaker tournament consists of at least one playoff round to establish the ranking within the tie. At the end of the tiebreaker tournament, the final ranking will be re-determined from the playoff results.
- The coach is separated from his/her students in the design and initial production of the virtual combatants. After the first tournament is finished, and the students return to their contest workstations, the coach may advise their students in the program improvement for the second and third tournaments – it is completely at the discretion of each coach whether they wish to do this or not.
- The programming language for constructing the virtual combatants is Java (version to be specified at the school briefing). No other programming language will be used in VXG.
- The integrated development environment provided is Eclipse (version to be specified at the school briefing). If the competing teams are not familiar with Eclipse, they may use any text-based editors available with the Microsoft operating system.
- The computer hardware for the competing teams is NTU-standard PCs. Each PC is powered by Microsoft Windows XP operating system. There is one PC allocated at each team's workstation for the duration of the contest.
- The PCs are connected by a simple LAN to the contest operators for the submission of requests for clarification and completed software. Internet access from the competing teams' PCs is disabled.
- Several shared dot-matrix printers are available for any printing required by the competing teams.
- The contestants may not bring with them any material, reference or otherwise, onto the contest floor. If any competing team desires to use such material at their workstation, the material is passed to the contest operators for their approval. If approved, the material is brought by the contest operators to the team's workstation. An example of material that is approved for the contestants' use is a paper-form dictionary.
- The following items are strictly prohibited from the contest floor: laptops, hand-held calculators, mobile telephones, or any other electronic computing, communications or entertainment device. Spectators are requested to switch their mobile phones to silent mode.
- Any contestant(s) involved in any impropriety during the contest causes their competing team to be disqualified from further participation in the contest and from winning of any prizes or awards.

- Impropriety includes, but is not limited to, getting help from any person(s) not on your team and not in the contest floor, hacking into another team's PC, loading a virus into the network, bringing unauthorized material onto the contest floor, divulging part or all of your solution to another team, or disturbing another team on the contest floor.
- A nominal fee is charged to the institution for registration of a team to represent them in the VXG challenge; this fee is not refundable. Each registering team is assigned a registration number that is the main reference for all contest planning and operations involving that team.
- Eligible contestants are students currently enrolled in the institution they are representing, as of the confirmed date of the contest. Eligible coaches must be duly employed by the institution they are representing, as of the confirmed date of the contest.
- Due to the event being telecast, a dress code of smart causal will be established. Competing institutions may opt for their students to wear school uniform instead of civilian attire.
- No food or beverages are permitted at the team workstation.

Contact details

Joey Tang

Communication Manager, VIRTUALXGAME

Nanyang Technological University

Office: School of Computer Engineering, NS2-05-36

Email: JoeyTang@ntu.edu.sg

Tel: 6316-8872

Visit our VXG website: http://www.ntu.edu.sg/nic/

About the National Infocomm Competition

The National Infocomm Competition is a multi-themed inter-school challenge created to uncover top infocomm talent in Singapore. Divided into three circuits - secondary schools, junior colleges and ITE/polytechnics – the competition will encompass challenges focused on areas such as business IT, digital media, mobile technology, security & networking and more. For more information, visit www.singaporeinfocomm.sg. The National Infocomm Competition is organised by the Infocomm Development Authority of Singapore, universities, polytechnics, ITE, Singapore Computer Society and Singapore Science Centre.