

## **Windward Finalizes Testing of Artificial Intelligence Programming Contest**

**Windward Code Wars to take place later this month on campuses throughout the world. This unique hackathon has great Microsoft and JetBrains prizes, does not require travel, and provides students with an afternoon of fun where their code is judged only on a survival-of-the-fittest basis.**

FOR IMMEDIATE RELEASE

Boulder, Colo. – Windward, the experts in reporting, document generation and business intelligence, finalized testing this week for the 2013 artificial intelligence (A.I.) programming contest. The International Collegiate Programming Championship, which is set to take place January 26, is where students spend a day programming — for fun — an A.I. character. They then cheer on one another as they try to beat their opponents in hand-to-hand combat.

Students from around the globe, including Saint Petersburg (Russia) State Polytechnical University and the Indian Institute of Technology, Delhi, will be competing this year. The entire event takes place simultaneously, so event organizers had to create only a single problem for international contest.

"This benefits everyone because it reduces the time commitment for each student participating; they don't need to spend multiple days of programming as they advance each round," said David Thielen, CTO of Windward. "They spend just one day creating the A.I., running it for the college playoffs, and later possibly running it for the final play-offs."

In addition, this format reduces the amount of work the organizers must put into the code war. If the contest were spread out over multiple days, the sponsors would have to create a different game/A.I. challenge for each day. Creating each game entails significant work, approximately four employee weeks per each game's programming and testing.

The game uses a client/server model where the game is run on the server and each A.I. is a client. The original reason for this model was to support the A.I. being written in any computer language. Each team can use the language they are most comfortable with; current examples were created using C#, C++, Java, & Python.

The client/server communication is over TCP. The client creates a connection with the server to join the game. The server then sends requests as XML packets to the client and the client replies with its turn as an XML packet. The server sends a turn request to all clients, then waits N seconds (two seconds for local games, six seconds for the international) for a response. If a response does not occur within the allowed time, then the server creates a random turn for that player for that turn.

"Testing went smoother than I expected and most of the issues arose where we needed to provide additional clarifications," Thielen added. "I'm now very confident that we'll have a very smoothly running code war."

To learn more about the International Collegiate Programming Championship – or to sign up if you're a student or professor – head to <http://codewar.windward.net/>

### **About Windward**

Windward Studios has been in business since 1995. Based in Boulder, Colorado, Windward was formed in 2003 to develop innovative software products for enterprises. Windward is the only comprehensive reporting, document generation and business intelligence system to use Microsoft Office as a template layout tool, thus significantly reducing the learning curve while saving time and money for technical and non-technical users. Windward provides OEM / ISV partners with fully embeddable tools that can be implemented with just a few lines of code. A free trial of Windward's products is available at <http://www.windward.net>.

Press Contact: Annette Grotz, Marketing Manager  
303-499-2544 x1191  
annetteg@windward.net