

# The ACM INTERNATIONAL COLLEGIATE PROGRAMMING CONTEST sponsored by IBM

## **FACT SHEET – December 9, 2005 – World Finals Second Edition**

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### *About the Contest*

The ACM International Collegiate Programming Contest (ICPC) traces its roots to a competition held at Texas A&M in 1970 hosted by the Alpha Chapter of the UPE Computer Science Honor Society. The idea quickly gained popularity within the United States and Canada as an innovative initiative to challenge the top students in the emerging field of computer science.

The contest evolved into a multi-tier competition with the first Finals held at the ACM Computer Science Conference in 1977. Operating under the auspices of ACM and headquartered at Baylor University since 1989, the contest has expanded into a global network of universities hosting regional competitions that advance teams to the ACM-ICPC World Finals.

Since IBM became sponsor in 1997, the contest has increased by a factor of seven. Participation has grown to involve several tens of thousands of the finest students and faculty in computing disciplines at over 1,700 universities from 84 countries on six continents.

The contest fosters creativity, teamwork, and innovation in building new software programs, and enables students to test their ability to perform under pressure. Quite simply, it is the oldest, largest, and most prestigious programming contest in the world.

The annual event is comprised of several levels of competition:

- *Local Contests* – Universities choose teams or hold local contests to select one or more teams to represent them at the next level of competition. Selection takes place from a field of over 300,000 students in computing disciplines worldwide.
- *Regional Contests* (September to December 2005) – This year, participation increased by nearly 50% from 4,109 to over 6,000 teams from 84 countries on six continents. Even with 197 sites, hundreds of teams were turned away due to lack of space!
- *World Finals hosted by Baylor University* (April 9 – 13, 2006, San Antonio) – As the guests of ACM, IBM, and Baylor University, eighty (80) world finalist teams will compete for awards, prizes and bragging rights at the Hilton Palacio del Rio in San Antonio, Texas. These teams represent the best of the finest universities on six continents - the cream of the crop.

### *Battle of the Brains*

The contest pits teams of three university students against eight or more complex, real-world problems, with a grueling five-hour deadline. Huddled around a single computer, competitors race against the clock in a battle of logic, strategy and mental endurance.

Teammates collaborate to rank the difficulty of the problems, deduce the requirements, design test beds, and build software systems that solve the problems under the intense scrutiny of expert judges. For a well-versed computer science student, some of the problems require precision only. Others require a knowledge and understanding of advanced algorithms. Still others are simply too hard to solve – except, of course, for the world's brightest problem-solvers.

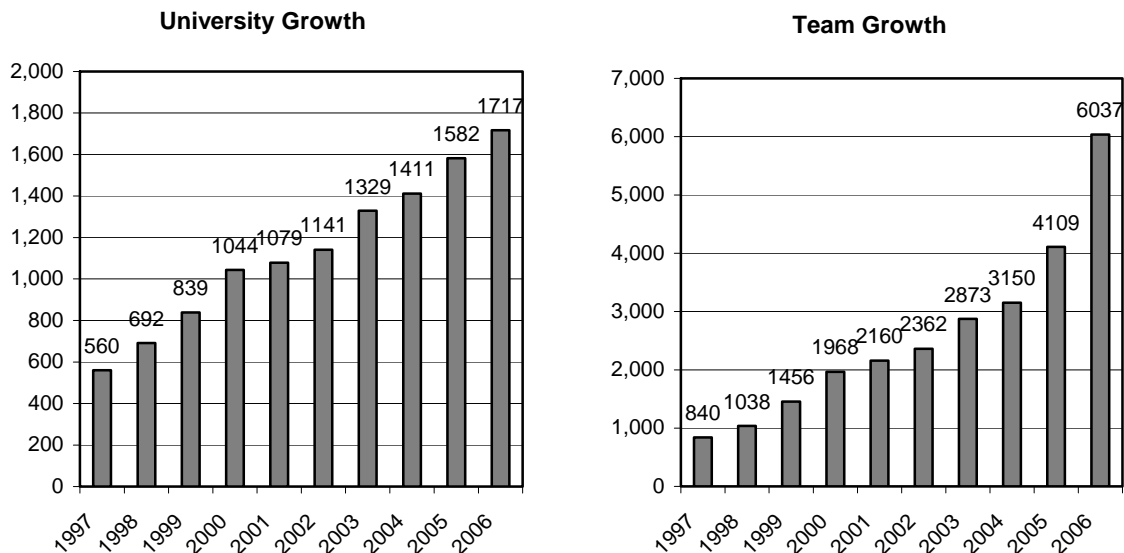
Judging is relentlessly strict. The students are given a problem statement – not a requirements document. They are given an example of test data, but they do not have access to the judges' test

data and acceptance criteria. Each incorrect solution submitted is assessed a time penalty. You don't want to waste your customer's time when you are dealing with the supreme court of computing. The team that solves the most problems in the fewest attempts in the least cumulative time is declared the winner.

To learn more about the ICPC, please visit <http://acmicpc.org> or <http://icpc.baylor.edu/>.

### Contest Growth

ACM, IBM, and Baylor University are thrilled that the contest continues to attract the best and brightest students from around the world, with tens of thousands of participants on 6,000 teams representing 1,700 universities at 197 sites in 84 countries this year. Since the beginning of IBM's sponsorship in 1997, participation has increased by a factor of seven. For more information on previous contests, and last year's final standings and problem sets, please see <http://icpc.baylor.edu/past/> or <http://www.software.ibm.com/acm>.



### World Finals 2006

Eighty teams from regional contests servicing universities world-wide will qualify to advance to the World Finals, which will be held at the Hilton Palacio del Rio in San Antonio, Texas, hosted by Baylor University, April 9-13, 2006. Recent gold medal winners in order of finish are:

- 2005: Shanghai Jiao Tong University (Shanghai, China)  
Moscow State University (Moscow, Russia.)  
St. Petersburg Institute for Fine Mechanics & Optics (St. Petersburg, Russia)  
University of Waterloo (Waterloo, Ontario, Canada)
- 2004: St. Petersburg Institute for Fine Mechanics & Optics (St. Petersburg, Russia)  
KTH – Royal Institute of Technology (Stockholm, Sweden)  
Belarusian State University (Minsk, Belarus)  
Perm State University (Perm, Russia)

- 2003: Warsaw University (Warsaw, Poland)  
Moscow State University (Moscow, Russia)  
St. Petersburg Institute of Fine Mechanics and Optics (St. Petersburg, Russia)  
Comenius University (Bratislava, Slovak Republic)
- 2002: Shanghai Jiao Tong University (Shanghai, China)  
Massachusetts Institute of Technology (Cambridge, MA, U.S.A.)  
University of Waterloo (Waterloo, Ontario, Canada)
- 2001: St. Petersburg State University (St. Petersburg, Russia)  
Virginia Tech (Blacksburg, VA, U.S.A.)  
St. Petersburg Institute of Fine Mechanics & Optics (St. Petersburg, Russia)  
University of Waterloo (Waterloo, Canada)
- 2000: St. Petersburg State University (St. Petersburg, Russia)  
The University of Melbourne (Melbourne, Australia)  
The University of Waterloo (Waterloo, Ontario, Canada)
- 1999: The University of Waterloo (Waterloo, Ontario, Canada)  
Albert-Ludwigs-Universitat Freiburg (Freiburg, Germany)  
St. Petersburg Institute of Fine Mechanics & Optics (St. Petersburg, Russia)  
Bucharest University (Bucharest, Romania)  
Duke University (Durham, North Carolina, U.S.A.)

### ***About ACM***

The Association for Computing Machinery (ACM) is a major force in advancing the skills of information technology professionals and students. ACM serves its global membership of 80,000 by delivering cutting edge technical information and transferring ideas from theory to practice. ACM hosts the computing industry's leading Portal to Computing Literature. With its journals and magazines, special interest groups, conferences, workshops, electronic forums, Career Resource Centre and Professional Development Centre, ACM is a primary resource to the information technology field. For more information, see <http://www.acm.org>.

### ***IBM's Commitment***

IBM's sponsorship commitment to the ACM International Collegiate Programming Contest is part of a company-wide effort to advance the next generation of computer scientists. For more information about other IBM college initiatives, please visit the IBM/ACM contest Web site and click on the Student Portal button - <http://www.software.ibm.com/acm>.

### ***About IBM***

IBM is the world's largest information technology company, with 80 years of leadership in helping businesses innovate. IBM software offers the widest range of e-business infrastructure software for all types of computing platforms, allowing customers to take full advantage of the new era of e-business. The fastest way to get more information about IBM software is through the IBM home page at <http://www.software.ibm.com>.

### ***Baylor University's Commitment***

Baylor University has been the home of the ICPC since the late 1980s, where it has been managed under the direction of Executive Director and Professor, Dr. William B. Poucher. The ICPC contributes to Baylor's global mission to encourage the next generation to develop and apply their problem-solving talents to the challenges that face the world today and the world to come. Chartered by the Republic of Texas, Baylor is the oldest institution of higher learning in the State of Texas. You may find more about Baylor at <http://www.baylor.edu/>.

### *Upsilon Pi Epsilon's Commitment*

The Upsilon Pi Epsilon International Computer Science Honor Society recognizes the best and brightest student in computer science and engineering in the world. Since its earliest participation, the UPE has provided support and scholarships to the World Finals teams. The UPE boasts the longest continuous relationship to the ICPC, dating back to 1970 with the first event held at Texas A&M by members of the Alpha Chapter of the UPE. For more information about other UPE activities, its chapters, and its membership click on: <http://www.acm.org/upe/>.

### **2006 World Finals Teams (80 of 6,037 teams representing 1,717 universities from 84 countries)**

Altai State Technical University	South Ural State University
Ateneo de Manila University	St Petersburg Institute of Fine Mechanics & Optics
Bangladesh University of Engineering & Technology	St. Petersburg State University
Binghamton University	Stony Brook University
Cairo University – Fac. of Computers & Information	Taras Shevchenko Kyiv University
California Institute of Technology	Technische Universität München
Carnegie Mellon University	The American University in Cairo
DePaul University	The Chinese University of Hong Kong
Duke University	The University of Hong Kong
ENST Telecom Paris	Tsinghua University
Facultad de Matematica, Astronomia y Fisica - UNC	Ufa State Technical University of Aviation
Fudan University	Universidad Autónoma de Tlaxcala
Fuzhou University	Universidad Central de Venezuela
Georgia Institute of Technology	Universidad Nacional de Colombia
Indian Institute of Technology Bombay	Universidad Tecnológica de la Mixteca
Instituto Tecnológico de Aeronautica	Universitat Politècnica de Catalunya
Jagiellonian University - Krakow	University of Adelaide
Kazakh-British Technical University	University of Alberta
Korea Advanced Institute of Science and Technology	University of Auckland
Kyoto University	University of British Columbia
Lund University	University of Cape Town
Madras Institute of Technology	University of Central Florida
Massachusetts Institute of Technology	University of Dhaka
Moscow State University	University of Maryland - College Park
National Taiwan University	University of Nebraska - Lincoln
Peking University	University of Tokyo
Petrozavodsk State University	University of Toronto
Pontifícia Universidade Católica do Rio de Janeiro	University of Twente
Princeton University	University of Waterloo
Renmin University of China	University of Wisconsin - Madison
Rice University	Ural State University
Saratov State University	Virginia Tech
Seoul National University	Warsaw University
Shahid Beheshti University	Washington University in St. Louis
Shanghai Jiao Tong University	Yaroslavl Demidov State University
Sharif University of Technology	Zhejiang University
Sichuan University	Zhongshan (Sun Yat-sen) University
Simon Fraser University	TBD December 12
Sofia University	TBD December 12
South Dakota School of Mines & Technology	TBD December 12