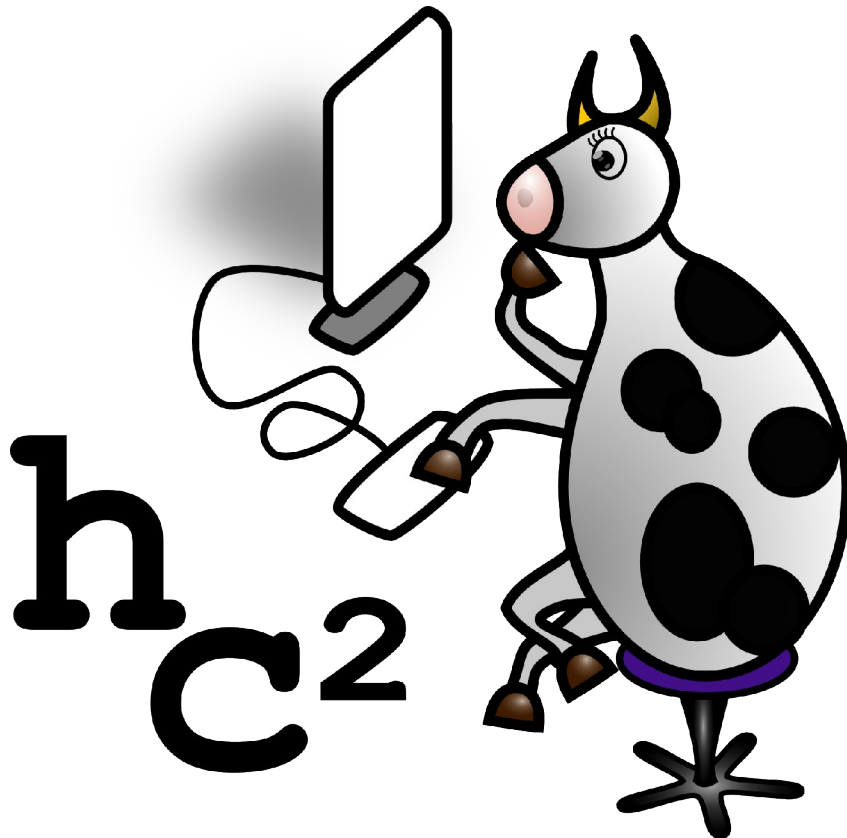


Helvetic Coding Contest

Official Report



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Abstract

The *Helvetic Coding Contest (HC²)* is a new Switzerland-wide programming contest held for the first time on March 13, 2010 at the Ecole Polytechnique Fédérale de Lausanne. The competition gathered 40 of Switzerland's brightest students from seven different higher educational institutions.

The participants proved their skills in algorithmics, teamwork and programming. In teams of two or three students, they tried to solve as many problems as possible by writing short C, C++ or Java programs.

We congratulate team *VIS 1 - We Take No Prisoners* from ETH Zürich for achieving the first rank.

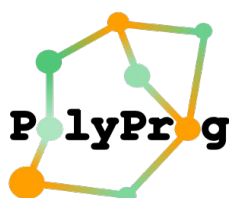
The Helvetic Coding Contest was made possible due to the generous sponsorship of *Brocade Communications*. It was organized by the student association *PolyProg*.

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- The remaining sections present the people and organizations behind HC², explain the contest itself and show the results.

Behind the scenes of HC²

It all started in a restaurant in Madrid. A delegation of PolyProg members had just represented their School, the EPFL, at the ACM International Collegiate Programming Contest. While celebrating their medals and looking back on the event, they wondered whether it would be possible to keep the extraordinary spirit of this programming competition alive by organizing an event of this kind in Switzerland.



PolyProg is a young (founded in September 2009) student association at EPFL. It offers a range of algorithmic seminars, trainings and contests to prepare students for international competitions. Besides that, its mission is to promote algorithmics and programming in general at EPFL. An event such as HC² fits well into the spirit of PolyProg.

The organization committee of the HC² was composed of the following PolyProg members:

- Christian Kauth (Problemsetter, coordination)
- Pierluca Borsò (Rules, communication)
- Titus Cieslewski (Website, registration)
- Robert R. Enderlein (Contest judge, accounting)
- Jean-Paul Wenger (Sponsoring)
- Jonas Wagner (Infrastructure, contest environment, graphical design)

Brocade

Brocade Communications is the exclusive sponsor of the Helvetic Coding Contest. The company is an industry leader in data center networking solutions and services that enable organizations to manage their most vital information assets. Global 500 companies rely on Brocade technology to keep their businesses running around the clock.



BROCADE

Brocade has pioneered the technologies that enable highly reliable and secure data center connectivity. Today most of the world's data flows through Brocade equipment and data center networks built on Brocade technology.

During HC², the contestants enjoyed a presentation of Brocade and had the opportunity to learn about the company's extraordinary products and solutions. Brocade was also featured in one of the problems of the contest.



EPFL

The Ecole Polytechnique Fédérale de Lausanne (EPFL) is one of the two federal schools of technology in Switzerland. Like its sister institution, ETHZ, it has three missions: education, research and technology transfer at the highest international level.

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In its idyllic location on the shores of Lake Geneva, EPFL brings together more than 10,000 people from 107 nations: students, professors, researchers and entrepreneurs. EPFL offers 13 complete study programs in engineering, basic sciences, computer and communication sciences, life sciences, civil engineering, architecture and environmental sciences. With more than 250 laboratories and research groups on campus, EPFL is one of Europe's most productive and innovative technology institutes, rated first in its field in the 2009 ARWU ranking.

Team YAWN from EPFL during the contest.



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This section gives an account of what happened during HC² and explains the contest in detail. The following is a summary of the day:

10:30	Registration
11:00	Official Start Introduction Presentation of Brocade
12:00	Dry run and Q&A
13:00	Contest starts
18:00	Contest ends
19:00	Solutions presentation and prizes ceremony

The contest

In its essence, HC² is a coding and algorithmics contest. This means that in order to win, the participating teams have to solve as many algorithmic problems as possible. We will present one problem of the contest below.



Teamwork is vital, as demonstrated here by team Codehängscht

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After five hours of intense programming, four problems had been completely solved by various teams, four had partial solutions and one problem remained unsolved. The exact results are shown in the following table:

Problem	Submissions	Best score
A	9	2
B	16	4
C	0	0
D	26	10
E	6	10
F	3	6
G	25	10
H	26	9
I	10	10

#	Country	Team	Problems							Solved Points			
			A	B	C	D	E	F	G	H	I		
1		ETHZ VIS I - We Take No Prisoners		3 (-1:2)		10 (0)			5 (-3:6)	9 (-18:8)	10 (-5)	37	-27
2		EPFL YAWN	2 (-2:2)	2 (0:1)		10 (0)	0 (0:4)		10 (0)	2 (0:1)	7 (0:4)	33	-2
3		ETHZ VIS IV - Ballmer Peak		2 (0:1)		10 (-12)	10 (0)	6 (0:2)	3 (0:1)	2 (0:1)		33	-12
4		ETHZ VIS III - Codehängscht		3 (-1:2)		10 (0)	3 (0:1)		2 (0:2)	2 (0:1)		20	-1
5		EPFL ASH	0 (0:1)	4 (0:1)		6 (0:1)					10 (-7)	20	-7
6		EPFL Ciresarii				10 (-14)					10 (0)	20	-14
7		ETHZ VIS II - Visbojern Strikes Back	1 (-2:3)	2 (0:1)		10 (-4)			3 (0:5)	2 (0:4)		18	-6
8		FHNW Modulmänner	0 (0:1)	2 (0:1)		10 (-14)			0 (0:5)	2 (0:4)		14	-14
9		UNIGE The Wiggles		2 (0:1)		6 (0:1)			4 (-2:3)			12	-2
10		EPFL YAPT		2 (-2:2)		10 (-4)		0 (0:1)				12	-6
11		SOI 2	0 (0:2)	2 (0:1)		6 (0:1)				3 (-3:7)	0 (0:1)	11	-3
12		SOI 1				10 (-4)						10	-4
13		HEIG-VD Les champomy		2 (0:1)		5 (-3:2)						7	-3
14		SOI-jsl		1 (0:1)		6 (-6:2)						7	-6
15		Hepia Zeptox		1 (0:1)					0 (0:2)			1	0

The top three teams were rewarded for their achievement with book prizes as well as gold, silver and bronze medals. Every participant was also awarded a diploma.

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Further information

The Helvetic Coding Contest website contains the detailed contest results, all problem statements and many pictures from the event. You can access it at <http://hc2.ch/>.

On the PolyProg website you will find information about past and future events organized by PolyProg. The website also contains many algorithmic challenges and provides ample information about the association: <http://polyprog.epfl.ch/>.

For information about our sponsor Brocade, visit <http://brocade.com/>.

Ecole Polytechnique Fédérale de Lausanne: <http://www.epfl.ch/>

If you desire more information, please do not hesitate to contact us directly by email: polyprog@epfl.ch

Picture credits

The pictures in this report have been taken by:

Robert R. Enderlein: Pages 2 ■, 4, 6, 8 ■

Andrea Blankenstijn, Club Photo EPFL (<http://kaze.ch>):
Pages 2 ■, 5, 8 ■, 10

Christian Kauth: Page 9





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Heidi the coding cow was the mascot of the Helvetic Coding Contest