KYRGYZSTAN OLYMPIAD IN INFORMATICS:

- Preparing Students
- Conducting the Olympiad
- Contest Management System
Kyrgyzstan
Rounds of Olympiads in Kyrgyzstan

- Schools
- Districts
- Regions (Bishkek and Osh cities have a special distinct status)
- National
Number of Participants in Kyrgyz Olympiad of 2017

- I round - carried by local schools (open-call for participation)
- II round - carried by local schools
- III round - 158 students from 9 regions
- IV round - 19 students (2 students - from every region and 1 - last year winner)
Programming languages of Olympiad

- C++
- Pascal
- Qbasic
# Kyrgyzstan’s Best Results in IOI (2000-2015)

<table>
<thead>
<tr>
<th>Year</th>
<th>Contestant</th>
<th>Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Igor Goroshko</td>
<td>319</td>
<td>53.17%</td>
</tr>
<tr>
<td>2004</td>
<td>Aleksey Baryshnikov</td>
<td>265</td>
<td>44.17%</td>
</tr>
<tr>
<td>2000</td>
<td>Andrey Mokhov</td>
<td>250</td>
<td>35.71%</td>
</tr>
</tbody>
</table>
Our cooperation

From 2015 Kyrgyzstan began to cooperate with neighboring Kazakhstan and Russian Federation in preparing students for the IOI contest.

Kyrgyz students attended summer schools:

- 2015 - Almaty (Kazakhstan)
- 2016 - Innopolis (Tatarstan, Russian Federation)
- 2017 - Almaty (Kazakhstan), Kostroma (Russian Federation)
Our results and achievements

✓ APIO (Asia Pacific Informatics Olympiad) - honorable mentions,

✓ IZhO (International Zhautykov Olympiad) - gold, silver, and bronze medals.

✓ All-Russian Olympiad of School Students in Informatics - diplomas of 2nd and 3rd degree.
## Results in IOI

<table>
<thead>
<tr>
<th>Year</th>
<th>1 student</th>
<th>2 student</th>
<th>3 student</th>
<th>4 student</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>12.87%</td>
<td>14.85%</td>
<td>16.83%</td>
<td>22.11%</td>
</tr>
<tr>
<td>2012</td>
<td>13.23%</td>
<td>17.74%</td>
<td>21.61%</td>
<td>26.13%</td>
</tr>
<tr>
<td>2013</td>
<td>8.36%</td>
<td>14.05%</td>
<td>14.38%</td>
<td>28.43%</td>
</tr>
<tr>
<td>2014</td>
<td>2.89%</td>
<td>9.00%</td>
<td>10.61%</td>
<td>15.43%</td>
</tr>
<tr>
<td>2015</td>
<td>13.04%</td>
<td>25.78%</td>
<td>35.09%</td>
<td>44.10%</td>
</tr>
<tr>
<td>2016</td>
<td>21.43%</td>
<td>25.32%</td>
<td>42.53%</td>
<td>51.95%</td>
</tr>
</tbody>
</table>

![Bar chart showing results from 2011 to 2016 for 1 student, 2 student, 3 student, and 4 student categories.](chart.png)
Our trainings

- Russian websites - acm.timus.ru, codeforces.com, acmp.ru, e-maxx.ru, etc.
- Ukrainian website - e-olymp.com,
- csacademy.com, usaco.org - popular in Kyrgyzstan.
- Kyrgyz website - olymp.krsu.edu.kg (was made for conducting college students Olympiads according to ACM ICPC rules and regulations),
Organization of Olympiads in Kyrgyzstan

- 2000-2014 - manual system,
- since 2015 - Automated Contest Management System (ACMS “Kalys”).

ACMS improves:

- ✓ the quality of program check,
- ✓ better preparation of high school students,
- ✓ selecting the best contest participants by objective criteria.
ACMS “Kalys” was developed at the Software Engineering Department of Kyrgyz State Technical University.

- Python/Django framework
- MySQL.
- Task description - Kyrgyz (state language), Russian (official language),
- User Interface - Kyrgyz, Russian, and English.
ACMS “Kalys”

The system has 2 modes of task evaluation:
- IOI standard for managing high school student Olympiads
- ACM standard for managing college student Olympiads.

The system supports 4 types of task evaluation and checking:
- Exact answer;
- Answer with given precision;
- Multiple correct answers;
- Interactive problems.
Recommendations of State Methodical Commission of the Kyrgyz Olympiad in Informatics

- Oblige secondary school teachers to attend refresher courses;
- Teach secondary school students C++ and Pascal;
- Introduce Informatics to the school curricula from the 5th grade;
- Use the ACMS “Kalys” at the Informatics Olympiads in 3rd and 4th rounds throughout the country;
- Remove district and regional quotas and introduce common national ranking;
- Create an official website of national high school Olympiad with an automated solution checking system for students to be able to practice before the Olympiad.
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Conducting the Olympiad

Contest Management System