General Assembly

Minutes of the Meetings held in Taipei, Taiwan
13-20 July, 2014

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1. Welcome

- Greg Lee welcomed the members of the GA to IOI-2014.
- Professor Tei-Wei Kuo was presented to the GA as the chair for IOI-2014.

2. Apologies

Apologies were received from Albania and Kuwait.

3. Presentation and confirmation of GA agenda

The agenda for the GA meetings was approved.

4. Appointment of scrutineers for voting during GA meetings

In accordance with the usual IOI procedure, it was proposed and approved that those past chairmen of IOI who were present should act as scrutineers.

5. Competition procedures

- Pang-Feng Liu was introduced as the Chair of the Host SC, and he presented the new features of the competition procedures.

    - C++11 would be supported.
    - Since all tasks had full feedback, the interface for contestants to run tests on the grader had been disabled.
    - All students would receive printed copies of task descriptions, both in English and translated in their preferred language. A student could use a translation produced by another country but there was a process to have this request approved by the country producing the translation.
    - Pre-competition practice had been provided both for familiarization with CMS and with the translation system.
    - Clarification requests would be permitted throughout the contest. Questions would be relayed via the IOI app on the tablets provided to leaders and deputy leaders, as well as by fax to the IOI Conference hall. The clarification system built in to CMS would not be used during IOI.

- The competition procedures were approved unanimously.

6. Call for Nominations for IC and ISC

- The following positions were due to be filled during the current IOI: IOI President, one IC position and one ISC position.
- The ED announced that the closing date for nominations for all three positions would be the start of the GA meeting before the second competition day.

7. Confirmation of the Minutes (IOI-2013)

The GA minutes from IOI-2013 were confirmed unanimously by the GA.

8. Details for IOI Conference

The GA was informed that the *Olympiads in Informatics* conference would take place in parallel with the two competition days, in the hotel where leaders and deputy leaders were being accommodated. All contributed presentations would be scheduled on the first day. The second day of the conference would consist of an invited talk. Subsequently, David Ginat's contributed presentation was rescheduled to the second day to accommodate his travel schedule.

9. Issues arising from practice session

- It was reported that an open wireless network was available in the contest hall. The Host SC clarified that wifi was disabled on the competition computers and could only be enabled with administrator privileges.
- It was pointed out that printouts could be diverted to other contestants by adding a spoofed cover sheet in the middle of the printout. The solution was to use a different logo, not publicly available, to identify the cover sheet.
- There was a request to provide extra table space for contestants with external keyboards. The Host SC responded that this was not possible due to the layout of the competition hall.

10. Presentation of Tasks for Competition Day 1

- Pang-Feng Liu, Chair of the Host SC, presented the three tasks selected for the first competition day.
- One major objection was received, for the task *Wall*, suggesting that it was a "simple problem" that must have been used elsewhere. The Host SC said that it was not as simple as it seemed and it was not known to have been used in any other competition.
- The GA voted overwhelming to accept the task set as a whole. There were no negative votes and one abstention.

11. Report on Competition Day 1

- The contest began on time.
- There were 310 official contestants and 4 additional members from the hosts' second team. During the contest, there were 4075 submissions, including 320 compilation errors.
- The grading system had 2 physical servers with 4 CMS servers running on each machine. There were 40 worker processes for grading submissions. On an average 8–12 workers were in use at a time.
- There were some minor problems with question papers.

  – One country's contestants did not have the correct translations in their envelopes. Only one of the contestants asked for a printed version of the translation and it was delivered in 12 minutes.
  – Two countries reported that the electronic translations in CMS were older than the printed versions. Fortunately, the obsolete versions were clearly incomplete and outdated

- In one portion of the contest hall, the network was disconnected temporarily because a contestant accidentally reset one of the network switches with his foot.
- Some problems were reported with the Pascal grader. The sample grader on the student machines (but not the server) had some bugs and would report more optimistic results than the actual scores. This was fixed before the end of the contest. It was noted that only 7 contestants used Pascal.
- There was a complaint that the Results and Analysis session started late, and that competition test data was not available till very late in the session. The Host SC promised to rectify this on the second day.

12. Summary of Written Appeals for Competition Day 1

The appeals for the first competition day were as follows.

- The Czech Republic reported a third case where the electronic versions of the question papers in CMS were older than the printed versions. The ISC and Host SC felt that no action needed to be taken.
- Slovenia noted that the countdown clock had a huge bomb symbol with a fuse. It was requested that this symbol be removed as it made students nervous. The Host SC promised to do so.
- The GA accepted the ISC's decisions on the appeals.

13. Presentation of tasks for Competition Day 2

- There was a major objection to the task *Holiday* on the grounds that Subtask 2 was identical to the practice task *Tourist Plan* used in IOI-2012. The objection also claimed that the same idea could be used to solve Subtask 3.

  The Host SC conceded that *Tourist Plan* was a superset of Subtask 2 but did not agree with the assessment of Subtask 3. The Host SC expressed its opinion that this was the hardest problem in the task set and it would prefer not to discard it, given the large number of perfect scores on the first day.

  There was a discussion on this issue. The ISC proposed removing Subtask 2 and redistributing the marks to other tasks. Another suggestion was to retain the subtask but reduce its score. Some delegations felt that this subtask should be retained, as it was pedagogically useful to approach the later subtasks.

  An informal vote by the ISC suggested that the majority opinion was to leave the task description unchanged. A formal vote was taken on accepting the task in its present form. The vote was in favour of the motion, with 54 votes for, 15 votes against and 3 abstentions.
- There was a major objection to Subtask 5 of *Friends* for which the model solution was based on bipartite matching, a topic that has been marked as "explicitly excluded" in the IOI syllabus.

  There was a lengthy discussion on the subtask and the syllabus.

  - The ISC contended that the solution to the next subtask did not require bipartite matching, hence a fully correct solution existed that did not require bipartite matching. However, it was conceded that the ISC and Host SC did not have any independent solution to Subtask 5 at this time that did not use bipartite matching.
  - The ISC attempted to clarify the meaning of the term "explicitly excluded" in the IOI Syllabus. It was agreed that the intention was not clear, as stated, and the Syllabus would be updated to clarify the terminology.

  There was an informal vote on whether to remove Subtask 5 and reassign the marks to other subtasks. The vote was against such a proposal.

  After the discussion, a formal vote was taken to retain the task without any changes. There were 51 votes for this motion, 15 votes against, and 5 abstentions.
- There was some confusion about the informal vote on whether to remove Subtask 5 on *Friends*. A formal vote was taken on the proposal to remove Subtask 5 and reassign the marks to other subtasks. This proposal was rejected by the GA, with 22 votes for removing the subtask, 43 votes against removing the subtask and 8 abstentions.

- There were only minor objections to the task *Gondola* and the task was accepted by the GA, with 69 votes in favour, none against and 4 abstentions.
- Having accepted all three tasks individually, the entire task set was accepted by the GA.

14. Report on Competition Day 2

- The contest started on time and went off smoothly.
- During the contest, it was noticed that the test data for Subtask 3 of *Gondola* was weak. There was a proposal to rejudge submissions with stronger test data, but eventually it was decided not to do so.

15. Summary of Written Appeals for Competition Day 2

The appeals for the second competition day were as follows.

- Canada complained that the sample grader and actual grader for *Friends* did not declare internal variables as static. This had a minor effect for Canada, but there were no other complaints on this count.
- A last minute submission for *Friends* was not graded. The logs did not show this submission to be in the grading system. In any case, it turned out that the score on this submission was 0.
- Two testcases on Subtask 2 of *Holiday* did not match the constraints given in the problem statement. The ISC and Host SC proposed to rejudge all submissions after omitting these two testcases. The GA accepted this proposal through a vote (50 for, 1 against, 11 abstentions).

  There was a lengthy discussion about the points to be awarded to one contestant who had missed 23 points on Subtask 2 and would now get these additional points after redjuding. The submission that obtained these 23 points did not solve Subtask 1 correctly. However, the same contestant had another independent submission that scored 7 points on Subtask 1. The GA agreed with ISC and Host SC that the contestant could have easily combined the two submissions into one that solved both subtasks and recommended awarding 30 points to this contestant after the rejudging.

  After the vote, it was announced that this rejudging moved a non-medal score above the bronze cutoff. This also meant that three students currently tied at the final bronze medal position would all lose their bronze medals because of the stipulation that no more than 50% of the students should receive medals.

16. Report by President

The focus of the President's report was to inform members of the GA of the nature of the work done by the International Committee (IC).

- One of the main items on the agenda of the IC is to look into the preparations being made by future hosts. The aim is to catch problems before they arise and alert hosts to issues that need to be addressed.
- In addition, the IC also evaluates applications from new countries and invites the ones who qualify as Observers.
- Another item that is addressed by the IC is to examine the regulations and propose changes that may be needed from time to time to reflect the changes in IOI as it evolves.

17. Report by Executive Director

- An important aspect of the Executive Director's duties is to coordinate communication between different arms of the IOI organization—the IC, the ISC, the hosts—as well as to field and respond to enquiries from outside the IOI community about participation, regulations and other issues.
- The Executive Director and the President have been assisting the current hosts for clarifications regarding enquiries with the current IOI.

- A number of requests had been received from new countries wishing to participate as Observers. After coordinating with the countries to get the necessary details, these had been discussed with the IC. This year, Observer status had been approved for two new countries, the Dominican Republic and the Philippines.
- Some enquiries have also been received from potential future hosts. The Executive Director coordinates the process of putting together a formal bid for discussion by the IC, as well as following up with formal correspondence after a future host has been selected.

18. Presentation by candidates for IC and ISC

- The following candidates filed their nominations prior to the deadline.
  - President: Krassimir Manev (Bulgaria)
  - IC (one position): Ben Burton (Australia)
  - ISC (one position): Michal Forišek (Slovakia), Fredrik Niemelä (Sweden), Richard Peng (Canada)

- All candidates were given an opportunity to introduce themselves to the GA. The candidate for President was allotted 5 minutes for his presentation. Candidates for IC and ISC were allotted 2 minutes each. Information on all the candidates, which had been supplied on their nomination forms, was distributed to the GA.

19. ISC and ITWG report

Martin Mareš, ITWG Chair, could not attend IOI-2014 due to ill health. Fredrik Niemelä, ISC Chair, reported on both the activities of the ISC and the ITWG.

- The ISC had evaluated a proposal by the hosts of IOI-2015 to introduce Java as an official language in 2015.
  - This would add some work for the Scientific Committee. An extra set of model solutions would have to be provided, and the grader would have to be extended to handle the new language. For team leaders, there would be an extra interface description to translate
  - On the technical side, the arguments against Java were that it is less efficient and harder to sandbox. However, the ISC coded solutions to the problems from IOI-2013 and found that Java was comparable to the slower of the accepted C++ solutions. Also, sandboxing worked fine, and Java has been in use in other competitions.
  - The final technical evaluation was that Java is not too slow and can be incorporated without having separate time limits. Java tends to use more memory, so tasks should not be formulated with very tight memory constraints.
  - Hence, the ISC concluded that Java should be included in IOI as an official language, with the same status as Pascal, C and C++. This means that all tasks should be fully solvable within the specified limits in any of these four languages.
  - There was some discussion on this topic.
    * The Host SC and ISC should guarantee that a fully correct solution for each task was possible in Java.
    * There was an opinion that interest in Java is waning. There was also a fear that adding Java would add more work to the already heavy load of the Host SC and ISC.
      The ISC pointed out that their survey after IOI-2013 indicates a nontrivial interest in including Java in IOI.
    * Some countries pointed out that Java timing is not deterministic. Extraneous factors such as garbage collection can affect running times.

* There were several comments and questions about which Java libraries will be allowed and whether this was fair. The ISC responded that there is already such an issue between users of Pascal and C++. However, the availability of sophisticated libraries should be kept in mind when formulating tasks.

    – It was agreed to put the proposal to a vote. Overall, the GA approved of the decision to include Java in IOI-2015, with 44 votes in favour, 10 against and 11 abstentions.

- The ISC proposed to strengthen the ITWG, which currently consists of only a single member, the ITWG chair. A stronger ITWG was needed to:

    – Improve organizational memory of the technical issues faced at IOI.

    – Build technical checklists for the hosts.

    – Maintain and develop common software—in particular, a task package format along with validation infrastructure.

    – Set up an online judge with IOI problems.

    The proposal was to expand the ITWG into a parallel International Technical Committee (ITC), structured along the same lines as the ISC, with host representatives from IOI-$n-1$ to IOI-$n+2$ and upto 3 independent members appointed by the ISC.

    The ITC proposal has been discussed with the IC. Setting up an ITC formally requires nontrivial changes to the regulations.

    To expedite matters, the ISC requested the GA to allow an ad hoc ITC to be created for one year, to assist with IOI-2015. The ISC would report back on their experiences. A stable structure for the ITC could be expected to emerge after a year or two of experimentation.

    The GA voted to approve the creation of an ITC on an experimental basis for IOI-2015 (63 votes in favour, 1 against, 6 abstentions).

- The results of the IOI-2013 survey would be made available online.

- Russia raised a question about task archives, pointing out that there was a variation in the material put out by hosts. Some hosts publish task statements and test inputs/outputs, but no graders or solutions. Some guidelines should be in place on what should be published.

    The ISC agreed in principle, but this has not been discussed in detail.

- Poland suggested having a training site, especially for non-standard problems.

    The ISC responded that this was being planned, but had not yet been taken up.

20. Financial statement for preceding year

Eljakim Schrijvers, the Treasurer of IOI, presented the financial statement for the preceding year.

- As in previous years, the budget allocated for ISC and ITWG was not spent because ISC and ITWG members were able to meet their expenses on their own. As agreed in previous years, this money was shown as having been spent, and compensated for in the financial statement as sponsorships from the parent organizations of ISC and ITWG members.

- The IOI Workshop planned for 2013–2014 was not held.

- The travel support for the invited speaker at the IOI-2014 conference will appear in the accounts for 2015 because the expense was incurred after the end of the financial year being reported.

- All other expenditure was as budgeted.

- The financial statement was audited by a subcommittee of the GA headed by Ries Kock. The auditors certified the accuracy of the accounts and commended the Treasurer for his work.

21. Budget for forthcoming year and registration fee for IOI-2015

Eljakim Schrijvers presented the budget for the forthcoming year.

- The travel budget for the President and Executive Director has been increased, keeping in mind the locations of the new persons taking over these positions.
- The budget for Communications has been increased to € 3000.
- A budget of € 2000 has been sanctioned to make the live broadcast more professional. This will primarily be used to design a better scoreboard.
- The budget for the IOI Workshop has been carried forward. Mile Jovanov from Macedonia has promised to organize a workshop.
- The registration fee for IOI-2015 will be retained at € 200.
- The budget and the registration fee were approved by the GA. There were 64 votes for, no votes against and no abstentions.

22. Regulation changes

Richard Forster described changes to the regulations.

- A number of changes had been approved in principle during IOI-2013

  - All references to the Board of Patrons would be removed from the regulations. The regulations about invited guests would also be reworded appropriately.
  - A clause would be added obligating the host country to provide to the ISC and the office of the ED the final scores of all contestants along with all supporting data about scores in tasks and subtasks.
  - The post of Treasurer would be recognized in the regulations, with the duties of this office spelled out and suitable modification made to various clauses currently in the regulations pertaining to finances.
  - The approval voting procedure, currently described only for elections with n ($n > 1$) positions, would be extended to cover all voting by the GA on items with n options.
  - The medal allocation algorithm would be formally incorporated in the regulations.

  The formal changes in regulations pertaining to these items were presented to the GA at the start of IOI-2014 and were approved unanimously.

- A new regulation change concerning A3.13 was proposed. In the current regulations, the third item under A3.13 says:

  - ISC members including the adjunct members will not have contact with the contestants after seeing the tasks. They are obliged to keep IOI task descriptions and all related material confidential until published at the IOI;

  It was felt that the stipulation about not having contact with contestants was not realistic and was also unenforceable. Instead, the following version of this clause was proposed.

  - ISC members including the adjunct members will not, after seeing the tasks, train (prospective) Contestants or engage in any act that results in the leakage of tasks, covered and non-covered topics. They are obliged to keep IOI task descriptions and all related material confidential until published at the IOI;

  This change was approved by the GA (65 votes for, no votes against, no abstentions).

23. Election of President

Krassimir Manev was elected unopposed as President of IOI.

24. Election of IC Member

Ben Burton was elected unopposed to the IC.

25. Election of ISC members

- Prior to the election for ISC, Ali Sharifi Zarchi announced that he would step down from his elected position in the ISC, with one year left to serve, in order to take up a more active role connected with hosting IOI-2017 in Iran. He would continue on the ISC as the host representative for IOI-2017.

    Since there were 3 candidates contesting for ISC, it was proposed that the candidate coming second could be appointed for one year to complete Ali Sharifi Zarchi's term. All three candidates for ISC agreed to this proposal.

- The outcome of the election for the ISC positions was as follows.

    - 51 delegations approved of Michal Forišek.
    - 22 delegations approved of Fredrik Niemelä.
    - 50 delegations approved of Richard Peng.

- Michal Forišek was elected to the ISC for a three year term.
- Richard Peng was elected to the ISC for a one year term to fill the position vacated by Ali Sharifi Zarchi.
- The GA formally voted to approve and accept the result of the elections (65 votes in favour, none against and no abstentions).

26. Proper usage of national symbols in closing ceremony

The GA were reminded to inform their students not to bring flags and large mascots onto the stage during the awards ceremony.

27. Results and confirmation of medals

- The medal allocation algorithm was used to determine the medals.
- The number of official contestants was 311, from 81 countries. One contestant arrived only for the second day of competition.
- 9 contestants were tied at rank 24. As per the regulations at least 25.9 gold medals should be awarded, so all contestants tied at rank 24 would receive gold medals, bringing the total to 32.
- At least 51.2 silver medals should be awarded. There were 3 ties at rank 82, resulting in a total of 52 silver medals from ranks 33–82.
- No more than 155.5 medals should be awarded overall. There were 3 ties at rank 154, which would take the total medal tally to 156. Hence, the bronze medal cutoff was fixed at rank 153. 69 bronze medals would be awarded.

28. Proposal to have official off-site participation in IOI

Richard Forster reported on the discussions in the IC regarding the proposal to allow official off-site participation in IOI.

- The ISC had examined the issue from a technical perspective. Their conclusion was that off-site participation could be enabled, provided there was sufficient notice to appoint observers etc.
- The IC discussed the issue and recommended against enabling such official off-site participation. The main points noted were:

    - The IC felt that it was important to maintain the face-to-face nature of the IOI.

- Once such an exception was granted, it would be very difficult to draw the line and more and more countries may seek such an option with different justifications.
- It would be difficult to guarantee a fair competition across off-site and on-site competitors, especially to account for extraneous factors such as jet lag and coping with a different culture.

- There was a long discussion in the GA on this issue.

  Several members felt that there should be a more concerted effort by the IOI community to work around situations where a team is unable to participate due to circumstances beyond its control.

  On the other hand, it was pointed out that the IOI in general, and the IC in particular, was not in a position to undo political and diplomatic realities. There was a strong recommendation from the Netherlands to keep the IOI's efforts as low profile as possible to avoid creating more problems by escalating issues to a governmental level.

- At the end of the debate, the GA adopted the following proposal.

  The GA directs the IC to establish rules to enable the participation in upcoming IOIs for countries that do not have diplomatic relations with the host country.

  There were 62 votes in favour of the proposal, none against and one abstention.

29. Announcement of future host

The IC announced that Japan would host IOI-2018 in Tokyo.

30. Proposals from GA members

No proposals were received.

31. Other business

- Mile Jovanov volunteered organize an IOI Workshop in Macedonia between February and May, 2015. The topic would be fixed by September, 2014.
- The Islamic countries participating in IOI-2014 presented a certification of appreciation to the hosts for the excellent arrangements made for those observing the Ramadan fast.