

# International Olympiad in Informatics

## Workshop on potential new and different task types to be used in future

The International Olympiad in Informatics hosts a regular workshop where the participants can actively discuss and try out new ideas. This workshop is meant to discuss potential ideas and help the IOI grow.

This year the workshop will be held in Enschede, The Netherlands.

Topic:	<b>New Task Types</b>
Location:	National Institute of Curriculum Development (SLO) Enschede, The Netherlands
Dates:	May 21 - May 26, 2008
Deadline to attend:	March 15, 2008
Information:	<a href="mailto:eschrijvers@eljakim.nl">eschrijvers@eljakim.nl</a> (scientific chair) <a href="mailto:r.kock@slo.nl">r.kock@slo.nl</a> (organizing chair)

We are currently seeking workshop participants who will actively think and try out new ideas for task types.

Since we also envision trying out the tasks we are not only looking for team leaders and experts in task development to participate, but also for several students that are willing to spend the weekend trying out the tasks and commenting on them.

## **Requirements for expert participants**

Each expert must:

- have been active at computer programming competitions in the past, either as a leader, organizer, or committee member.
- have created tasks for computer programming competitions in the past.
- have ideas about renewing the tasks at the IOI
- have at least 1 new idea that is significantly different from the task types that were used in the past
- preferably have 2 new ideas that are significantly different from each other.
- submit at least 1 fully documented new task type to be discussed and tested at the workshop.
- be able and willing to travel independently to the workshop
- be able to obtain the necessary visa
- be able to communicate in English

Note: the organizers may decide to allow experts to participate who do not fulfill all criteria.

## **Requirements for student participants**

Each student must:

- no longer be eligible to participate at an IOI
- have won at least one bronze medal at an IOI and send a copy of the ranking at all IOI's where the student participated.
- be currently enrolled at a university
- be able and willing to travel independently
- be able to obtain the necessary visa
- be able to communicate in English

Note: the organizers may decide to allow students to participate who do not fulfill all criteria.

## **Requirements for task types**

The following list defines requirements for the new task types.

- each task must fit in a time period of at most 5 hours
- tasks must have no cultural bias, i.e. people from all cultures must be able to score equally well
- it should be possible to rank the students after the competition

The following are things that are not absolute requirements, but are important issues to consider when creating a task type:

- the ranking should be made on reasonably objective grounds
- the task type / ranking technique should display minimal bias towards prior knowledge that contestants may or may not have.
- solutions and rankings should depend as little as possible on randomness outside the control of the contestant(s).

When thinking about new ideas, you can always think about the following items. **NOTE** that these are definitely not requirements.

- can the task have some visual effect or presentation
- can the task be 'fun'
- will students work individually or in groups each task must be made so that students can solve them individually
- is it possible to explain the idea of the task in five minutes to an outsider
- will you rank students based on absolute or relative performance
- is it possible to have students perform on the same task on different levels of difficulty
- is it possible to see rankings during the competition

### **About the workshop**

The workshop will be held at the National Institute for Curriculum Development (SLO) in Enschede, The Netherlands.

The meetings will be chaired by:

Organizing chair:       Ries Kock

Scientific chair:        Eljakim Schrijvers

### **About the organizers**

Ries Kock has been member of the International Committee of the IOI from 1991 until 1998, chairman of the organizing committee when the IOI was hosted in The Netherlands in 1995. He has attended the IOI since 1990.

Eljakim Schrijvers is currently a member of the International Committee of the IOI. He has been the team leader and coach for the Netherlands since 1992.

### **About the sponsors**

The workshop will be sponsored by:

- International Olympiad in Informatics
- National Institute for Curriculum Development (SLO), The Netherlands
- Ministry of Education, The Netherlands

### Schedule for experts

Wednesday May 21	Arrival day
all day	arrivals
18:00	Dinner
Thursday May 22	Meeting day #1
09:00 - 12:30	Initial presentations All participants will spend 5-10 minutes on presenting their task idea(s). After each presentation the other participants may ask questions.
12:30 - 13:30	Lunch
13:30 - 18:00	Group sessions The experts will be split up into smaller groups that will discuss a set of task ideas and decide on advantages and disadvantages of the various ideas. The group members will think of several task implementations for each task type.
18:30	Dinner
Friday May 23	Meeting day #2
09:00 - 11:30	Group presentations Each group will present the result from the previous day's session. Each presentation will last a maximum of 20 minutes followed by 30 minutes of discussion.
11:30 - 12:30	Task selection The experts will select a set of tasks that will be tried out by the students.
12:30 - 13:30	Lunch
13:30 - 18:00	Task preparation The experts will be split up into groups to create the actual tasks that the students will work on. For each task a list of questions for the students to answer will be made.
18:30	Dinner with the students
Saturday May 24	Test day #1

09:00 - 10:00	Presentation of the tasks for session #1
10:00 - 12:30	Test session #1
12:30 - 13:30	Lunch
13:30 - 14:30	Presentation of the tasks for session #2
14:30 - 18:00	Evaluation of test session #1, while students work on session #2
18:00 - 20:00	Evaluation of first test day with students
20:00	Dinner with the students
Sunday May 25	Test day #2
09:00 - 10:00	Presentation of the tasks for session #3
10:00 - 12:30	Evaluation of first test day
12:30 - 13:30	Lunch
13:30 - 15:30	Evaluation with students
15:30 - 18:00	Evaluation and conclusion
19:00	Dinner with the students
Monday May 26	Departure day
all day	departures

### Schedule for students

Friday May 23	Arrival day
all day	arrivals
18:30	dinner with the experts
Saturday May 24	Test day #1
09:00 - 10:00	Presentation of the tasks for session #1
10:00 - 12:30	Test session #1
12:30 - 13:30	Lunch
13:30 - 14:30	Presentation of the tasks for session #2
14:30 - 18:00	Test session #2
18:00 - 20:00	Evaluation of first test day
20:00	Dinner with the experts
Sunday May 25	Test day #2
09:00 - 10:00	Presentation of the tasks for session #3
10:00 - 12:30	Test session #3
12:30 - 13:30	Lunch
13:30 - 15:30	Evaluation
15:30 - 18:00	Free time
18:00	Dinner with the experts
Monday May 26	Departure day
all day	departures

**Venue and costs**

All participants will be housed in double rooms in a hotel near the SLO. The hotel and restaurant costs will be paid for by the organizers.

Participants must pay for their own transportation from their home town to Schiphol Airport, The Netherlands. The travel costs from Amsterdam Airport to Enschede by train (second class) will be covered by the organizers.

All other costs (insurance, gifts, ...) must be paid for by the participants.

**About stipends**

The IOI has generously agreed to help pay for the transportation if a participant is unable to receive funding from their home organizing committee.

- For each expert a stipend of 50% of the travel costs, with a maximum of € 200 (two hundred euro) is available.
- For each student a stipend of 75% of the travel costs, with a maximum of € 400 (four hundred euro) is available.

Requests for a stipend must be made and approved in advance by the organizers.

The stipends will be paid out at the end of the workshop. It is important that the participant saves receipts of all transportation tickets and lets the organizers make copies of those.



### **How to attend as an expert participant**

The organizers ask you to submit a description of your idea for at least two task types by e-mail to [ [eschrijvers@cljakim.nl](mailto:eschrijvers@cljakim.nl)].

Please send this information ON OR BEFORE March 31 2008.

Please also submit a small biography of yourself.

From the submissions the organizers will select the persons to invite. The organizers strive to select a diverse group with diverse ideas about the task types.

The organizers will inform the participants ON OR BEFORE April 10 of which participants are invited to the workshop.

The invited participants are requested to submit more detailed written materials about the task ideas ON OR BEFORE MAY 5.

The organizers will distribute the task type ideas and the more detailed distributions by e-mail ON OR BEFORE MAY 15.

The participants are requested to read through the ideas before arriving at the workshop.

We kindly request the leader participants to not inform the student participants (yet) about these new materials as to not influence them too much.

We kindly request the leader participants that have been invited to suggest to the appropriate students to apply to attend the workshop. Do note, however, that the student may ask you to pay for the travel expenses!

### **How to attend as a student participant**

Send a small (max 200 words) description of why you would like to attend and what you think you can bring to the workshop.

Send this information ON OR BEFORE April 15.

If you have any ideas about what new tasks types should be like, do not hesitate to add an appendix with as much information as you want to give.

The organizers will inform the students about which students will be invited ON OR BEFORE April 15.

### **About communications**

Please send your information in one of the following formats:

- Plain text with separate attachments for images, etc.
- Microsoft Word, Rich Text Format, or Apple Pages.
- Latex + PDF with make file

The plain text format is the preferred format.

If you send e-mail messages please send them in plain text.

Do NOT use HTML or RTF e-mail.

### **Questions and contact information**

If you have any questions, please e-mail the organizers:

[eschrijvers@eljakim.nl](mailto:eschrijvers@eljakim.nl)

[r.kock@slo.nl](mailto:r.kock@slo.nl)