

Software contest winners mostly students

There were no software professionals amongst this year's winners of our National Software competition. Grace Chng finds out why.

All the winners of this year's National Software Competition's Open Section, are personal computer buffs who had started programming since their early teens.

This annual competition, which was held in conjunction with the National IT Week 91, is confined only to personal computer software. Its aim is to promote the use and understanding of IT and to encourage the development of creative application of IT by computer enthusiasts.

The theme of this year's competition was Creativity in

Software Design. The Open section was divided into three categories — business, learning and games software. (See Pg12 for their interviews)

The other runners-up are Mr Tan Choon Meng, 20, a student (business software); Mr Koh Chong Khye, 36, teacher (learning software); and Mr Quek Meng Kiat, 20, national serviceman (game software).

They and the respective runners-up from the three categories will receive their

prizes on Dec 4 during the opening of the annual Singapore Informatics exhibition held at the World Trade Centre.

The winners and runners-up will each receive a computer peripheral and/or software packages. Prizes are donated by CSA Research, CNT, Primefield, ACA-Pacific, Future Enterprise and Proton Computers.

For the competition, each had to submit an application package together with the

necessary documentation.

The entries were judged on their originality, creativity, user-friendliness, usefulness, entertainment value and whether the software meets its stated objectives.

There were three rounds of testing. The first is a cursory test to check that the software entries are operational. The second test by qualified IT professionals looks for technical excellence. In the final round the judges look for commercial value and overall

excellence.

The judges this year did not nominate a winner of the Outstanding Award which is usually given to one of the three group winners. They felt that the quality of the software submitted this year was not as high as it could have been.

Said Dr Ho Tatkin, Director of the Japan-Singapore Institute of Software Technology, who was one of the three judges of the competition:

"The standard wasn't very different from that of the previous years." He said that with computerisation present in Singapore for so long, the judges expected an improvement in standard every year.

"Perhaps we were biased in that we were looking for better entries than the previous year."

He was surprised that there were no software professionals among the winners. "The problem is that the industry is

short of people. There is no spare capacity for software engineers to enter competitions.

"Another problem is that they are caught up with bread and butter issues. They are working hard to earn promotions and bigger bonuses. They have no time for competitions."

Another reason was that the number of entries and finalists this year — only 20 — was very small. As such, Dr Ho said the judges were not inclined to give an Outstanding Award.

The national software com-

petition is an annual event organised and sponsored by the Microcomputer Trade Association (Singapore). Co-sponsors of the event are the National Computer Board, the Singapore Computer Society, the Singapore Federation of the Computer Industry, the Singapore Microcomputer Society, the Japan-Singapore Institute of Software Technology and the People's Association.

With the fall in the number of entries, the organisers hope to change the format of this competition to encourage greater participation.

Meet the software whizzes

They all started computer programming in their early years and share a passion for computers. Grace Chng reports.



Shannon's fascination with computer graphics motivated him to join the software competition.

Business category

RI boy is second-time winner

Fifteen-year-old Raffles Institution student Shannon Low is a winner in two consecutive national software competitions.

In 1989, his entry — a package that allowed users to write short notices — took first place.

"But it wasn't professionally done. On hindsight, it was a very basic programme," he said.

He was more prepared for this year's competition. His software programme PIX FX was awarded the first prize in the business category.

PIX FX allows a user to create posters, advertisements,

charts and even animation.

"Computer graphics fascinates me," he said. "I see animation on film and I am amazed at the control one can exercise on the environment."

"It is unlike a photographer who cannot control his surroundings."

A pupil in the Gifted Programme since Primary 4, he has had to do a project every year.

This year, he developed a package related to graphics which he felt he could also have submit for the software competition.

"The computer allows you to control the environment to do wonderful things with graphics," said Shannon who

programs on an IBM-compatible 386SX PC that his father bought him last year.

The science student took about a year to write the prize-winning program, starting from December last year when he thought of the idea.

In January, he submitted an outline to his teacher for his school project. He then approached the project systematically by planning the entire development process, breaking it into sections so that he could control the process of software designing, coding and documentation.

"It took me about five to six months to write the software. The rest of the time was fine-tuning to ensure there

were no bugs," said Shannon, who hopes to become a computer scientist.

Shannon started programming when he was in Primary 3, after his father bought him an Apple II.

He was fascinated with the computer and taught himself programming.

Today he has learnt programming languages like Turbo Pascal and Quick Basic.

One program he wrote allowed him to turn his computer keyboard into a musical instrument.

When not working at this computer, Shannon reads humour and science fiction novels.

Education category

Love for maths lead to software prize

Love for mathematics led 18-year-old science student Pang Ki Khoon to write a special program to help A-level students study this subject.

The program, called Infinity, took nine months to develop and many long hours of writing computer codes. But it was worth the effort because he emerged champion in the learning section of this year's national software competition.

"It was a project for my A-level computer science paper," said Ki Khoon who represented Singapore in the Maths Olympiad held in Sweden in July this year.

"My teachers suggested this educational program because no one else in my school had done anything similar before."

Ki Khoon, who has been programming since he was 14, heard about the national software competition and was keen to test his skills.

"Since I was doing this project for my A-levels, I thought I may as well submit the same application for the competition." He sat for his A-level examination in November.

Once he had decided to take part in the competition, Ki Khoon had to give up last year's Christmas holidays as well as this year's June break to design and develop the software.

There were a lot of functions to design and code, then he had to write the user manual. His only companion during the long hours of programming was his radio.



18-year-old Pang Ki Khoon wants to be a systems analyst.

Infinity is a software that allows a student to solve mathematical problems.

To start, the student enters the problem. He can then obtain a list of all the possible

solutions by pressing a button.

If the student makes no progress from here, he can use the Help key which enables the student to see a description of each solution. The student then chooses whichever solution he prefers.

Ki Khoon was concerned that his software should be easy to use and understand. So the presentation of the software, that is, what the user sees on the screen, took a long time to complete.

For example, he incorporated a lot of pop-up menus which allow the user to point a "mouse" and click on his or her choice.

This may seem simple but requires complex design and lots of coding.

"To develop the Help function, I had to imagine and anticipate all the various problems a user could get into and write the solutions; this was a difficult task," said Ki Khoon.

Not satisfied with his software, he got his friends to use Infinity and make suggestions as to how he can improve it. From their feedback, he built flexibility into the program. For example, a user can change the colour of the screen text.

He also added a demonstration program to explain how to use the software.

The program was submitted in the middle of this year for his A-level computer science paper. The rest of the

time, he worked to fine-tune Infinity for the software competition.

The son of a translator with the Home Affairs Ministry and a housewife, Ki Khoon has previously written a software that helps to keep track of the scores of teams taking part in quizzes, which he said was easy to write.

Apart from writing software, he also chaired his JC's computer science society last year.

During his one-year term, he introduced computer literacy courses to other students in the school, the first time such courses had been held in RJC.

He explained: "I feel computer skills are relevant to everyone. So students should be exposed to them as well."

Ki Khoon is also an excellent student who is able to balance his studies with his software development activities.

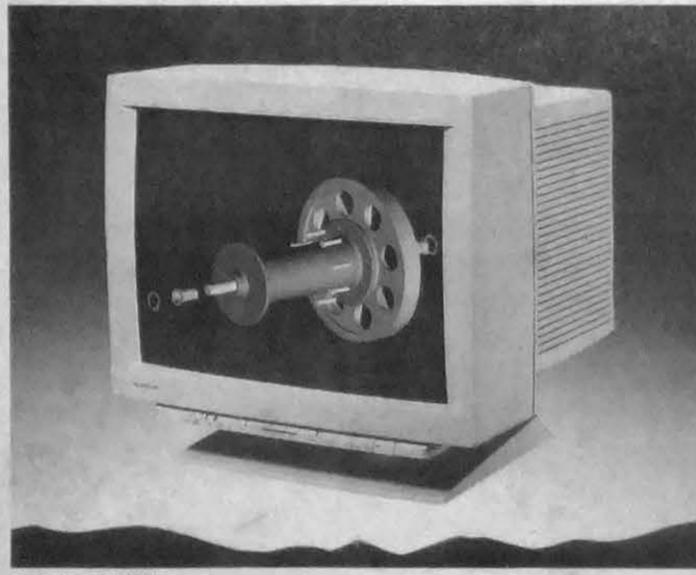
He was on the programme for gifted pupils in Raffles Institution and his O-level results are impressive — he scored eight A1s (including both English and Chinese).

More recently, he managed to earn four As in his preliminary A-level examinations.

Having been awarded a provisional scholarship by the National Computer Board, he hopes to study computer science in the United States.

"I hope to become a systems analyst so I can help in the country's computerisation efforts."

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