

**Message by Guest of Honour**  
**At the Official Launch of 2<sup>nd</sup> Vacation Camp for SG@Schools**  
**(PC Grid Computing for Schools Programme)**

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**ADDRESS BY MR. RICHARD LIM, CHIEF EXECUTIVE OF DEFENCE SCIENCE & TECHNOLOGY AGENCY, AT THE OFFICIAL LAUNCH OF THE 2ND SG@SCHOOLS (PC GRID COMPUTING FOR SCHOOLS PROGRAMME) VACATION CAMP ON TUESDAY, 28<sup>TH</sup> NOVEMBER 2006, AT THE LECTURE THEATRE 3, HWA CHONG INSTITUTION**

**Introduction**

I am delighted to be here this morning for the official launch of the second vacation camp on PC Grid Computing for Schools (or SG@Schools). I understand that the two schools selected to undertake PC Grid Computing projects after last year's vacation camp will also present their work. More importantly, I will be announcing on how schools can tap upon the ICT Club Scheme to embark upon using and developing PC Grid applications.

**Background on PC Grid Computing for Schools Programme**

The SG@Schools (or PC Grid Computing for Schools programme) is jointly organized by Defence Science & Technology Agency (DSTA), Ministry of Education (MOE) and the National Grid Office (NGO). Its purpose is to enable and empower students to develop applications based on creative ideas to run on a computational grid built using PCs available in schools. In addition, the PC Grid will provide a formidable computational resource for supporting compute intensive project work such as animation rendering, life science and physics simulations.

Through this 2-day vacation camp, we hope to introduce the students and teachers to the Grid Computing in general and PC Grids in particular. Two schools, Hwa Chong Institution and Raffles Institution, were selected after last year's vacation camp to set up the SG@Schools Grid using their schools' PCs. Hitherto some 116 PCs have been linked together. Later in the programme, we would be hearing from the two teams, which will be presenting their project work.

As more schools participate in the SG@Schools programme, the number of PCs in this grid will increase. The total number of PCs in all the schools (primary, secondary and junior colleges) in aggregation would provide quite a sizeable amount of computational processing power. A conservative estimate gives the number of PCs to be 120,000 in Singapore schools.

### **ICT Club Scheme**

To encourage more schools to come on board, the Infocomm Development Authority of Singapore (IDA) has approved funding support under its ICT Club Scheme to expose students to Grid Computing by taking part in weekly training sessions to learn how to build applications and run them on the SG@Schools Grid. Such activities are aligned with MOE's Co-Curricular Activities (CCA) framework, where students earn CCA points through participation in the ICT Clubs.

The NGO is a technology partner of the ICT Club Scheme and provides the training syllabus in Grid Computing for schools. The two tracks are BUILD and USE.

The BUILD track focuses on the development of PC-Grid enabled applications. This involves either building an application from scratch or grid-enabling an existing application. The BUILD track starts with a series of training lessons for the students, after which they embark on their own individual or group (preferred) projects under the supervision of one or two mentors.

The USE track focuses on the use of applications that already exist on the PC-Grid. Such applications could be potentially be the result of the BUILD track. This track involves vendors who are familiar with the applications, who brief the students on how to use the tools and to help them achieve a desired level of competence.

The NGO will work with training partners to carry out the training programme, using different PC-Grid software. Hitherto, three training partners have been appointed, namely, Elchemi Education Pte Ltd using Apple's XGrid software, Singapore Computer Systems Ltd using United Devices' GridMP software and ST Electronics (Info-Software Systems) Pte Ltd using the open source BOINC software. Schools can select the training partners to work with based on their interest.

For selected students who deliver outstanding work, NGO will recommend them to work with PC-Grid training partners on real-life applications and researchers from research institutes.

## **Conclusion**

In closing, I would like to thank the Hwa Chong Institution for kindly making the lecture theatres and computer laboratory available for the training camp, as well as the mentors Dr. Ma Tin Lay New and Dr. Dong Minghui from Institute for Infocomm Research, Bryan Lee from Bioinformatics Institute and Zhang Xinhua from National University of Singapore, who have spent time supervising the projects for Hwa Chong Institution and Raffles institution.

I would also like to thank Dell Computers, Elchemi Education, Singapore Computer Systems, ST Electronics (Info-Software Systems), and United Devices for their kind sponsorship.

And now, I am delighted to declare this vacation camp officially open and wish the students and teachers a great learning experience. I look forward to a good response to the ICT Club Scheme.

Thank you.