

ETSI 3rd GRID Plugtests™

CoreGRID Conference

30 November 2006

Sophia Antipolis

N-Queens and FlowShop results

Patrick Guillemin – ETSI TC GRID – contest jury

<http://www-sop.inria.fr/oasis/plugtest2006/Providers.html>



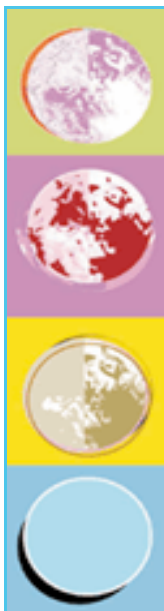
2006 FlowShop contest



- ❑ Goal of the FlowShop contest
 - Solve the 10 Taillard instances with 20 jobs and 20 machines
- ❑ 2005 FlowShop contest
 - The winner was POZNAN PUTat3AM - POLAND (**4 581s**)
- ❑ 2006 FlowShop contest (4 teams)
 - BUPT – Beijing University - China
 - Kanban System - University of Tokyo - Japan
 - *POZNAN OUTPUT - Poland*
 - *POZNAN PUTat3AM – Poland*
- ❑ **The winner is Kanban System: 553 s, 207 workers**
 - *Beating 2005 FlowShop contest record*
 - BUPT: 13 760 s, 86 workers



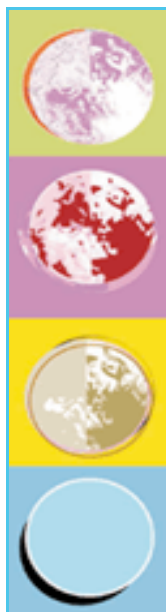
www.lifl.fr/OPAC



2006 N-Queens contest



- ❑ Goal of the N-Queens contest
 - Solve the maximum number of N-Queens solutions in 1 hour
 - On a maximum number of machines
 - With the most efficient algorithm
- ❑ 2005 N-Queens contest
 - The winner was LSC/UFSM – CHILE ~2 202 *Billions* solutions
 - 1106 *Workers* deployed
 - Counted N=21 *Queens* in 13mn
- ❑ 2006 N-Queens contest (10 teams)
 - Eight Samurai - University of Tokyo – JAPAN
 - FIT – Tsinghua University - CHINA
 - BUPT – Beijing University - CHINA
 - VU – Vrije University - NETHERLANDS
 - ChinaGrid – CHINA
 - MOAIS/Kaapi – FRANCE using direct login
 - *UDP - Diego Portales University - CHILE*
 - *LSC/UFSM – BRAZIL*
 - *POZNAN PUT@3AM - POLAND*
 - *POZNAN OUTPUT - POLAND*

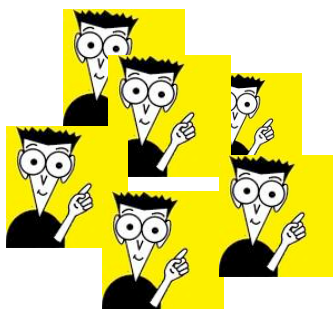


2006 N-Queens contest

- ❑ The 3rd ProActive Prize winner is VU – Vrije University
 - Calculated N=22 Queens in 27mn
- ❑ The 2nd ProActive Prize winner is ex-aequo BUPT and FIT with ~5 000 Billions solutions found on ~680 workers
- ❑ The 1st ProActive Prize winner is Eight Samurai with ~6 467 Billions solutions found deployed on 2193 workers
- ❑ The « Prix special du Jury » is MOAIS/Kaapi
 - Calculated 8 times N=22 Queens ~21 528 Billions solutions in 4600s (1h16mn) on 1348 Workers
 - Computed N=22 Queens in 488s (8mn8s)
 - And N=23 Queens ~24 233 Billions solutions in 4 415s (1h13mn)



THANK YOU !



30 November 2006

1st CoreGRID Industrial Conference

Background Slides



BUPT: Beijing University of Posts and Telecommunications

FIT: Future Internet Technology, Tsinghua University

Kanban System and Eight Samurai :

**Department of Information and Communication
Engineering University of Tokyo**

Poznan University of Technology

MOAIS/Kaapi <http://moais.imag.fr>