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JSC at CeBIT 2011

CeBIT, the world's largest computer exhibition, will take place in Hannover from 1 to 5 March 2011. The Gauss Centre for Supercomputing (GCS) with its three members, the computing centres in Jülich (JSC), Garching (LRZ), and Stuttgart (HLRS), will be present at the booth of the German Federal Ministry of Education and Research (BMBF, Hall 9, booth B40). They will show simulations from science and engineering obtained using supercomputers and inform the public about their activities. JSC, in particular, will present simulations from the fields of astrophysics, biophysics, climate, fire and evacuation science, pedestrian dynamics, plasma physics, and turbulence. If you are attending CeBIT, don't forget to pay us a visit.
(Contact: Dr. Walter Nadler, ext. 2324)

HOPSA Project Launched

The new HOPSA project ("HOlistic Performance System Analysis") has received two years funding within the EU 7th Framework Programme (2011 / 2012). As part of a special EU-Russia call, it is also coordinated with a matching Russian project. The objective of this twin project is to create an integrated performance diagnosis infrastructure for combined system and application tuning. The Russian partners are responsible for the first part, the European partners for the second. Based on a system-wide basic screening of the performance properties of individual jobs, an automated work flow will route findings on potential performance bottlenecks either to system administrators or application programmers together with recommendations on how to identify their root cause using more powerful diagnostic tools. To this end, the European performance tools ThreadSpotter (RogueWave AB, formerly Acumem), Paraver (BSC), Vampir (TU Dresden) and Scalasca (JSC/GRS) will be more tightly integrated. On the Russian side, the HPC computing centres of Moscow State University and the Russian Academy of Sciences, T-Platforms, and the Southern Federal University in Taganrog are participating in the HOPSA project. The project is coordinated by JSC.
(Contact: Dr. Bernd Mohr, ext. 3218)

Foundation of European Open File System Society

On 16 December 2010, the European Open File System (EOFS) Society was founded in Munich. The initiative to cooperate on this topic originated from JSC. As a legal form the Societas Cooperativa Europaea (SCE, European Cooperative Society) was selected. The purpose of this non profit organization is to

- promote the establishment and adoption of an open source parallel file system,
- sustain and enhance its quality, capabilities and functionality,
- ensure that the specific requirements of European organizations, institutions and companies are considered,

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- ensure that engagement and activities with other organizations will not directly or indirectly interfere with the intellectual property or other contractual and legal obligations of its members,
- facilitate the extension of business operations to non-members.

The following 14 organizations are founding members: Forschungszentrum Jülich, Bull GmbH, CEA/DAM, Data Direct Networks, Universities of Paderborn and Zürich, GSI Helmholtzzentrum für Schwerionenforschung GmbH, credativ GmbH, T-Platforms, HPCFS, Mellanox, Whamcloud, Leibniz Rechenzentrum (LRZ) and ParTec GmbH.

At the founding meeting several members expressed their satisfaction about the fact that this is the first time a Europe-wide consortium has engaged in the open-source development of high-speed file systems. It was agreed that such an important piece of file system software should not be made proprietary with no absolute guarantee of future access. On the contrary, the organization should establish an open source code base, prioritize the development efforts, and improve the functionality and stability of the underlying parallel file system. Furthermore, the intention was expressed to build a bridge to similar development efforts in the United States.

The next meeting will take place on 22 March 2011 in Munich. This is a good opportunity to further enlarge the membership as a number of additional companies have expressed their intention of joining this organization.
(Contact: Klaus Wolkersdorfer, ext. 6579)

New GPU Cluster JUDGE

In February, the new IBM iDataPlex GPU cluster JUDGE (Juelich Dedicated GPU Environment) will be available for production jobs. The cluster consists of 54 compute nodes, 2 login and service nodes and 2 GPFS gateway nodes. Each compute node is equipped with 2 Intel Xeon X5650 (Westmere) 6 core processors of 2.66 Ghz, 96 GB main memory and additionally 2 NVIDIA Tesla M2050 GPU (Fermi) 3 GB memory. All cluster nodes are connected via Infiniband. The user file system is remote GPFS imported from the Jülich storage cluster JUST via two gateway nodes with routing functionality from 10G Ethernet connection to Infiniband. JUDGE will be used by Forschungszentrum Jülich for simulation projects. The system will be advantageous for applications that need a large main memory and can profit from the usage of graphic processors. There will be a special course for GPU programming in March.
(Contact: Otto Büchner, ext. 6433)

Call for Projects

The Gauss Centre for Supercomputing (GCS) has issued its fifth call for large-scale projects. Proposals from publicly funded German academic and research institutions are eligible. Projects are classified as "large-scale" if they require more than 5% of the potentially available CPU cycles on a member centre's high-end system, for example more than about 70 million processor core hours or 24 rack months on the petaflop supercomputer JUGENE in Jülich. Further details can be found at: *http://www.gauss-centre.eu/computing-time/call*. Applications should be submitted at the latest by 28 February 2011.

This deadline also applies to applications for regular projects on JUGENE and on the general-purpose supercomputer JUROPA. For more information see: *http://www.fz-juelich.de/jsc/computing-time/*.
(Contact: Dr. Walter Nadler, ext. 2324)

Carsten Karbach: Germany's Best MATSE Trainee

In the last JSC News, we mentioned that Carsten Karbach from JSC passed his MATSE examination with marks of 100 per cent and was doubly honoured for this outstanding result. In the "national best trainee ceremony" on 13 December 2010 in Berlin, he learnt that he is no less than the best MATSE trainee in Germany. During this event, the Federal Minister of Labour and Social Affairs, Dr. Ursula von der Leyen, and the chairman of DIHK, Prof. Dr. Hans-Heinrich Driftmann, congratulated him on his success. "I have not had a trainee like him in my 28 years as training manager," Paul Jansen of JSC proudly said. "It is great that he is going to stay at our institute". Carsten Karbach started studying for his master's degree in technomathematics in September and will work on the PTP project and further develop the monitoring tool LLview.

Events

GPU Programming
Instructors: Dr. Jan Meinke, Jochen Kreutz, Dominic Eschweiler, Willi Homberg, JSC; Dr. Daniel Becker, GRS
Date: 21 - 23 March 2011, 9:00 - 16:30
Venue: JSC, Ausbildungsraum 1 (building 16.3, room 021)
Registration: *w.homberg@fz-juelich.de*, ext. 2424

Parallel I/O and Portable Data Formats
Instructors: Wolfgang Frings, Dr. Michael Stephan, Dr. Florian Janetzko, JSC
Date: 28 - 30 March 2011, 9:00 - 16:30
Venue: JSC, Ausbildungsraum 1 (building 16.3, room 021)
Registration: *w.frings@fz-juelich.de*, ext. 2435

If you would like to receive regular information on our events, please send an e-mail to *jsc-events-join@fz-juelich.de*.

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