

Meet Me at the Hub! New at SC14 – the Intel Community Hub

By Mike Bernhardt

Having attended every SC conference for the past 25 years, I've seen numerous HPC companies, trends, technologies and products come and go. This year, I'm proud to represent Intel as the company celebrates 25 years of HPC leadership, demonstrating an unwavering commitment to HPC and highlighting the tremendous accomplishments of the global HPC community.

The SC conference technical sessions are highly regarded because of the extensive examination of proposed sessions by the SC Review Committee. The Committee selects just a few dozen proposals from the hundreds submitted each year.

And while the technical sessions are the foundation of this world-renowned conference, there is widely recognized tremendous value in the networking and discussions that take place each year among the 10,000 attendees.

One evolving trend of the SC conferences has been the move to more interaction – less “talking to” and more “talking with” as community collaboration becomes the cornerstone of HPC progress. It's a sign of the times.

As a former publisher and reporter attending past SC conferences, I always valued the opportunity to engage the attendees and exhibitors in more informal conversation. However, the exhibitors were often so busy with their presentations and demos that there just wasn't time for those types of interactions.

This year, things are different.

In the spirit of celebrating Intel's thriving collaboration with the global HPC community, we will have a designated location within Intel's SC14 booth to encourage and foster open community discussion.

The *Intel Community Hub* (Booth #1315) will be a gathering place for community discussion, sharing experiences, and fostering dialogue with Intel experts and community leaders on various topics including:

- Processors
- Visualization
- Fabric
- Code modernization
- Software
- Data Intensive HPC
- Software Tools

Additionally, scientists and researchers from the Intel® Parallel Computing Centers (Intel® PCC) program will be leading various discussion groups in the Community Hub, discussing efforts related to code modernization across numerous industries and applications. Don't miss the discussion groups with Intel PCC partners including Georgia Tech, LBNL, PNNL, NCAR, TACC, TU Munich, and others.

The Intel Community Hub will be the gathering place for anyone in the community wanting to meet and talk with subject matter experts in a friendly, comfortable and stimulating environment.

Here are just a few featured discussion groups taking place at the Intel Community Hub:

Data Intensive HPC

Wednesday, Nov. 19, 10:00 a.m. to 12:00 p.m.

Discussion leaders:

- Marie-Christine Sawley, Intel Director of the Exascale Computing Research Lab, Paris
- Dr. Happy Sithole, Director of the Center for High Performance Computing, South Africa

Leading scientific experiments such as LHC or SKA and industrial use cases that exploit large volumes of raw data at unprecedented rates, are powerful drivers for innovation. Creative, leading edge hardware and software solutions are needed for data filtering, correlation, reduction and mining. The participants will discuss requirements and BKMs, as well as how emerging hardware and software concepts can address the “data-intensive HPC” challenge.

HPC for the Oil and Gas Industry

Wednesday, Nov. 19, 10:30 a.m. to 12:00 p.m.

Discussion leader:

- Gregg Skinner, HPC Applications Specialist, Intel Corporation

This discussion will focus on software challenges in oil and gas exploration. Attendees will be encouraged to weigh in on Intel Software Tools and the Intel architecture roadmap. The group will explore topics such as the performance metrics needed to tune HPC kernels and the challenges of moving legacy applications to exascale architectures. The discussion leader will comment on best known software practices for current and future Intel architectures and their applicability to the oil and gas industry.

HPC Challenges and Solutions for Manufacturing

Thursday, Nov. 20, 10:00 a.m. to 11:30 a.m.

Discussion leader:

- Gregg Skinner, HPC Applications Specialist, Intel Corporation

This discussion will focus on software challenges and solutions in manufacturing. Attendees will be encouraged to comment on Intel Software Tools and the Intel architecture roadmap and their applicability to challenges in the manufacturing industry. The session will explore topics such as the performance metrics needed to tune HPC kernels and the challenges of moving legacy applications to exascale architectures. The discussion leader will comment on best known software practices for current and future Intel architectures and their applicability to the manufacturing industry.

Additional Discussion Groups

Throughout the week, the Community Hub will feature the following discussion groups, which are open to all SC attendees. Stop by and bring your toughest HPC questions. Share information with your colleagues in a comfortable, informal setting.

Booth #1315 – you can't miss it.

Tuesday, Nov. 18

- **10:00 a.m. to 12:00 p.m. – The Doctor is In**
Meet Steve Lionel, aka Dr. Fortran, for an educational and entertaining discussion of Fortran and vectorization
- **10:30 a.m. to 12:00 p.m.**
HPC Fabrics/Fabric Integration and Solutions
- **12:00 p.m. to 2:00 p.m.**
OpenMP and Code Modernization
- **2:00 p.m. to 4:00 p.m.**
Math Kernel Library (MKL)

Special Events at the Intel Community Hub

Tuesday, Nov. 18

- **12:00 p.m. to 1:30 p.m.**
Women in HPC
SC14 Attendees are invited to join this open discussion. Space is limited – be sure to get there early.

- **12:00 p.m. to 2:00 p.m. – Open MP and Software Development Tools**
Special guest – Sanjiv M. Shah is vice president in the Software and Services Group and general manager of technical and enterprise computing software tools at Intel Corporation. He leads the organization responsible for the business success of technical and enterprise computing software development tools, and the technical success of software analysis tools and parallel runtime libraries across all computing segments.



Stop by to meet Sanjiv and bring your questions on OpenMP and software development tools for an expert-level discussion, which will be held in the Collaboration Zone, just outside the entrance to the Intel Community Hub.

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Special Life Sciences Discussions

- **1:00 p.m. to 2:00 p.m. – SIMULIA**
- **2:00 p.m. to 3:00 p.m. – ASPERA AND BIOTEAM**
- **3:00 p.m. to 4:00 p.m. – CLC BIO**

Thursday, Nov. 20

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Meet Steve Lionel, aka Dr. Fortran, for an educational and entertaining discussion of Fortran and vectorization.
- **12:00 p.m. to 1:00 p.m. – A special book signing event for the new parallel programming book from James Reinders and Jim Jeffers, “High Performance Parallelism Pearls.”** Be sure to pick up a copy of the book during the week and bring it to the Community Hub on Thursday to get it signed.