BLUE WATERS
SUSTAINED PETASCALE COMPUTING

Blue Waters User Monthly Teleconference

NCSA · NSF · GREAT LAKES CONSORTIUM FOR PETASCALE COMPUTATION · CRAY

Agenda

Topics for this webconference:

- Blue Waters Science and Engineering Team Advisory Committee (SETAC)

- Upcoming Events: System Maintenance, Education Allocations, User Workshop.

- Usage tool on the BW portal.

- Mark Erbersole from NVIDIA presents the K20x NVIDIA GPU.

- Science Impact Input Discussion

- Future Blue Waters Users telecons/webinars

  - HPSS/GO Best Practices

Science Impact Input

SETAC

- Science and Engineering Team Advisory Committee (SETAC)
- Role: make recommendations to the project director on "positive change or improvement in scope or direction."
- Duties of SETAC:
  - Advise the project director on overall Project vision and planning.
  - Provide high-level review and recommendations on directions, strategies.
  - Identify challenges and solutions for petascale applications.
  - Recommend strategies for improving communication.
  - Monitor operations and provide guidance.
  - Propose new metrics.
  - Advise the Blue Waters Technical.
  - Take part in follow-on and related activities.

Nominations should be sent via email to wtkramer@illinois.edu no later than October 24, 2013.

System Maintenance

- Next week
  - Half day outage to upgrade the system management software (SWM).

- Second week of November
  - Full day outage to upgrade Cray Linux Environment (CLE).
  - CUDA 5.5.
  - Improved resource usage reporting.

Education Allocation

- Educational uses
  - semester-long courses, workshops, and institutes.

- Contribute to the development of a national workforce with expertise in petascale computing.

- Some possible educational topics include:
  - Large-scale datasets and optimization of I/O file access.
  - Developing and testing of codes that use advanced methods, languages and tools
  - Optimizing and scaling of a community code to a large-scale simulation.
  - Optimizing or developing new libraries and tools that will leverage architecture features or processor counts unique to the Blue Waters system.
  - Modeling of systems or codes.
  - Use of large-scale computation and data analytics in discipline specific classes and events.

For complete details and to submit a proposal, visit:
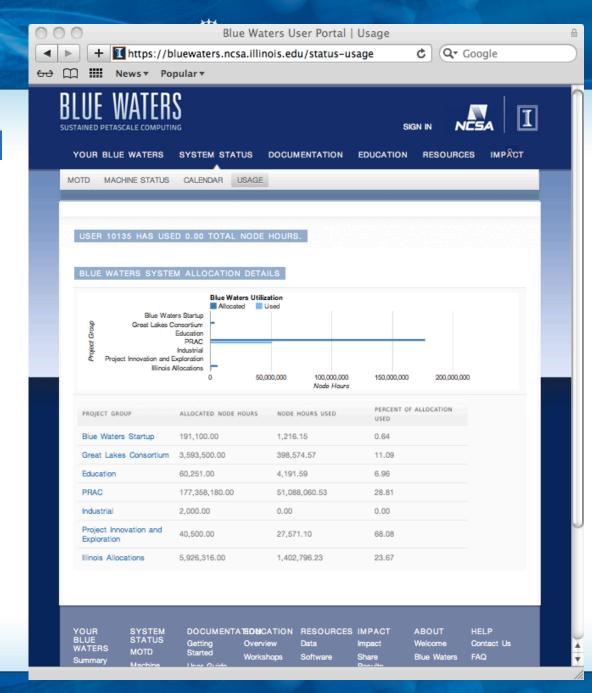https://bluewaters.ncsa.illinois.edu/education-allocations.

Blue Waters Workshop

- December 3-5 at NCSA

- Advanced NVIDIA K20x "Kepler" programming

- Advanced HDF programming

- Presenting performance speedup

- Approaches to job resiliency.

- Overview of compiler, programming models, accelerator languages.

- Full agenda to appear ASAP.

Portal Usage Tool

- Open access
- Dive-down
- Tables
- see Usage

NVIDIA Presentation

- Mark Ebersole, NVIDIA
    - https://twitter.com/CudaHamster

Request for publications, presentations, …

- We need to be current on products that result from time on Blue Waters such as:
  - Publications, Preprints (e.g. arXiv.org 💀), Presentations.
- Appreciate updates sooner than annual reports.
- NSF PRAC teams send information to PoCs.
- See the Share Results section of the portal as well.

Future Topics?

- Please send us your suggestions on topics for future teleconferences / webinars