



INTERNATIONAL EXASCALE SOFTWARE PROJECT

APRIL 13-14, 2010 OXFORD, ENGLAND

The focus of the upcoming IESP meeting in Oxford will be transitioning from planning what needs to be done (the roadmap), to constructing a plan to achieve our goals -- from the what, to the how.

We will begin with a short review of the basics of the current roadmap, and solicit any feedback, and then begin building a rough sketch of the "how" to execute on our shared roadmap. We would like to build a shared implementation plan - the "work product" of this meeting. Goals to be included in the plan can be sorted into three rough categories, as follows:

- Technology:
 - Assessing the short-term, medium-term and long-term software and algorithm needs of applications for peta/exascale systems
 - Refining the roadmap for software and algorithms on extreme-scale systems
 - Setting a prioritized list of software components for Exascale computing as outlined in the Roadmap.
- Organization:
 - Developing a governance, management, and organizational structure for the IESP
 - Exploring ways for funding agencies to coordinate their support of IESP-related R&D so that they complement each other
 - Exploring how laboratories, universities, and vendors can work together on coordinated HPC software
 - Creating a plan for working closely with HW vendors and application teams to co-design future architectures
- Execution:
 - Developing a strategic plan for moving forward with the Roadmap
 - Creating a realistic timeline for constructing key organizational structures and achieving initial goals
 - Exploring community development techniques and risk plans to ensure key components are delivered on time
 - Exploring key components of any needed Intellectual Property agreements