Argonne NATIONAL LABORATORY

SAWs: Scientific Application Web server

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Portable, Extensible Toolkit for Scientific Computation (PETSc)

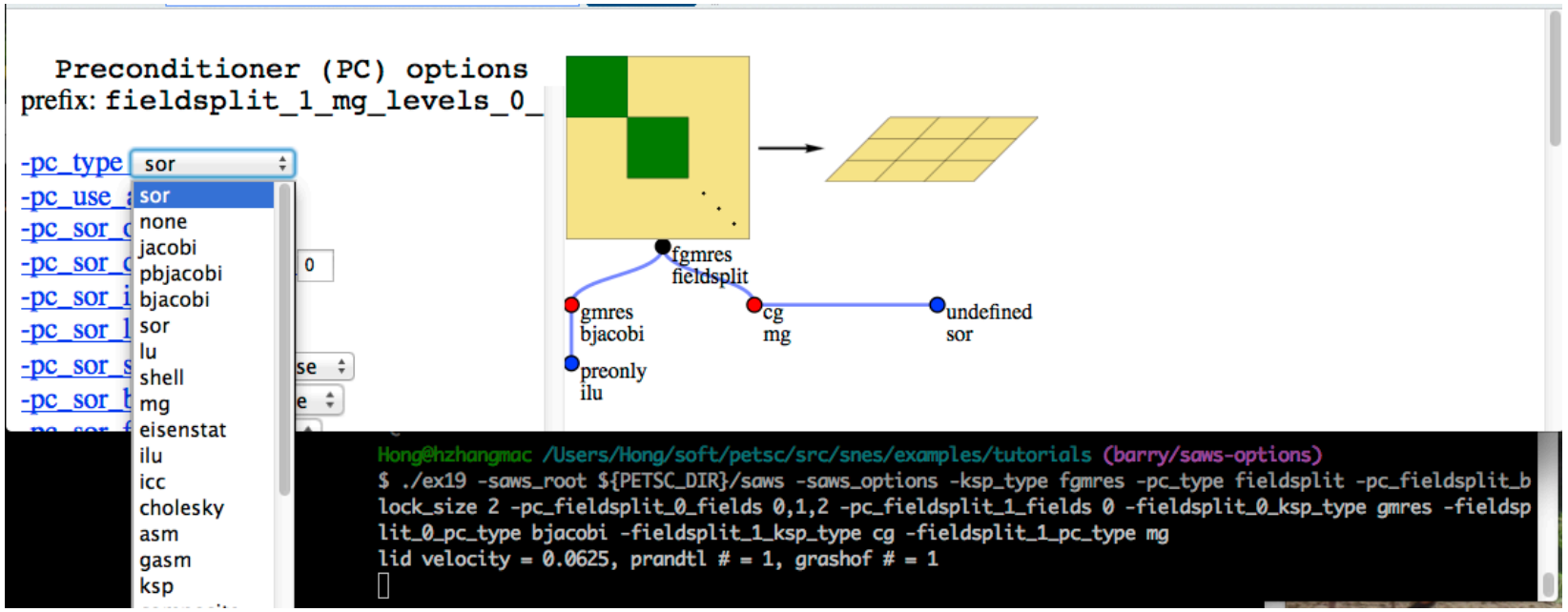
- **User support:** Graphic visualization tool for

1. Gather and present multiple layers of solver information in meaningful and easily understood formats

2. Assist user to select, customize and assemble the desired hierarchical and nested solvers (all of the choice at the various levels)

3. Interact with the long simulation in real time (on extreme-scale computers?)

SAWs: Scientific Application Web server



- turn any C, C++, or Fortran scientific or engineering application code into a webserver
- user can examine and modify the state of the simulation with any browser from anywhere
- operating with PETSc, user can view and interact with real-time (parallel) simulations

PETSc Linear Solver Selection

~petsc/saws/pcoptions.html

- web interface to facilitate design composable hierarchically nested solvers
- viewing the resulting algorithms and command options