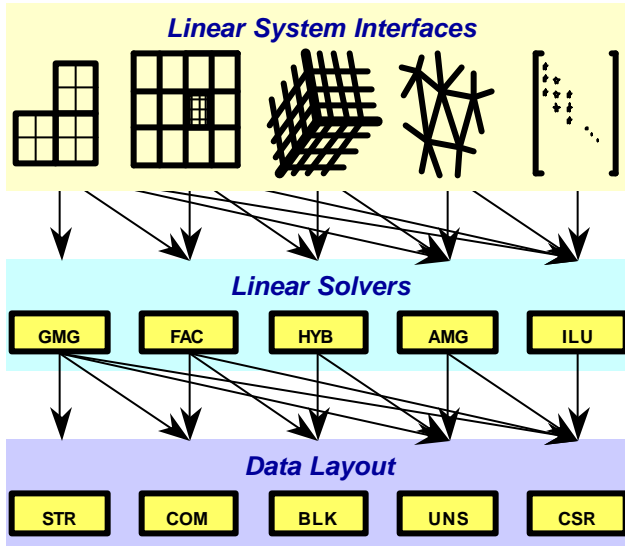
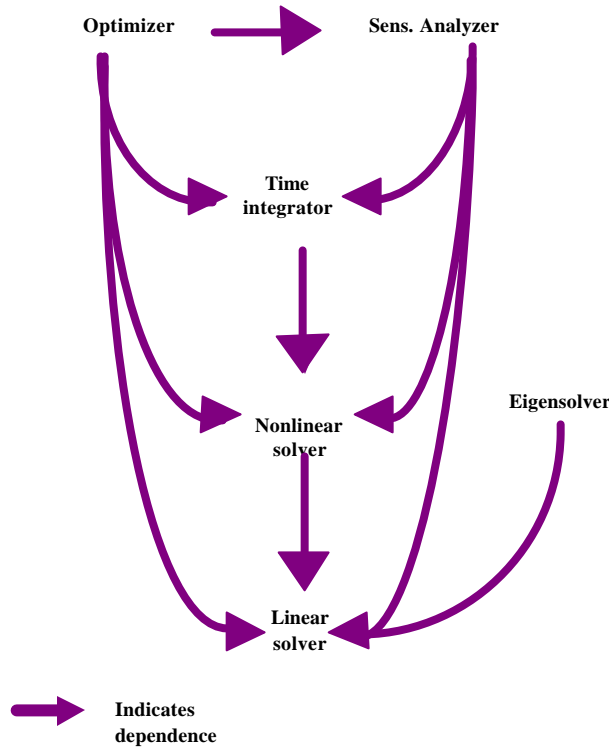
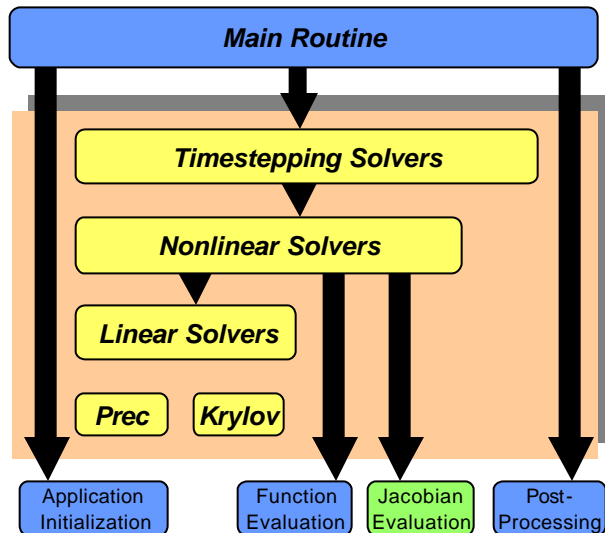


TOPS is not just algorithms, but vertically integrated software suites in tunable, extensible, portable, high-performance parallel implementations. TOPS makes interoperable some of the most popular toolkits in the DOE, such as Hypra, PETSc, SUNDIALS (PVODE family), SuperLU, and TAO. TOPS solvers will also interoperate with APDEC and TSTT codes.



TOPS inherits Hypra's conceptual interfaces (above), so users access its multilevel solvers from data structures close to applications, and PETSc's nonlinear solvers (below)



TOPS is for applications that are:

**Multirate**

requiring fully or semi-implicit in time solvers

**Multiscale**

requiring very fine mesh spacing relative to integral spatial scales

**Multicomponent**

requiring physics-informed preconditioners, transfer operators, and smoothers

[www.tops-scidac.org](http://www.tops-scidac.org)



Terascale Optimal PDE Simulations

a project of three national labs ...



Berkeley Lab

... and six universities



Carnegie Mellon

