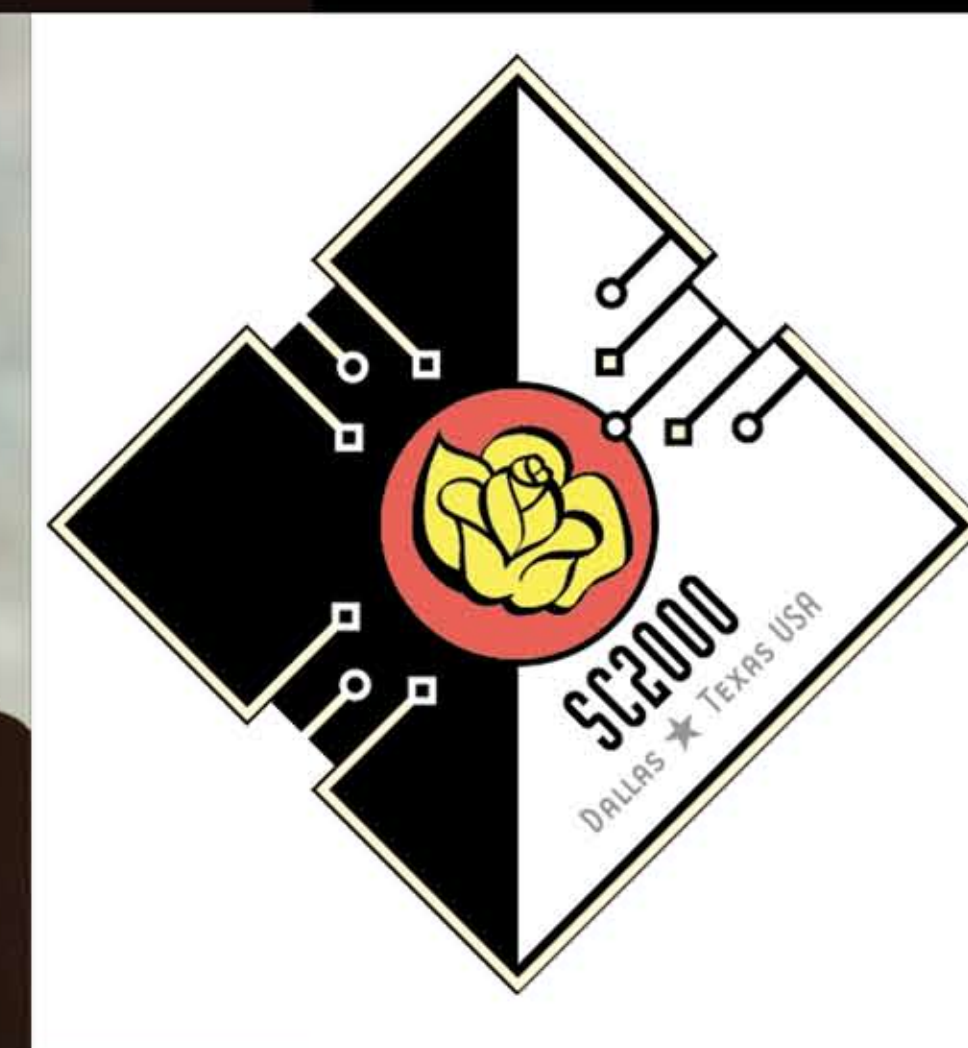


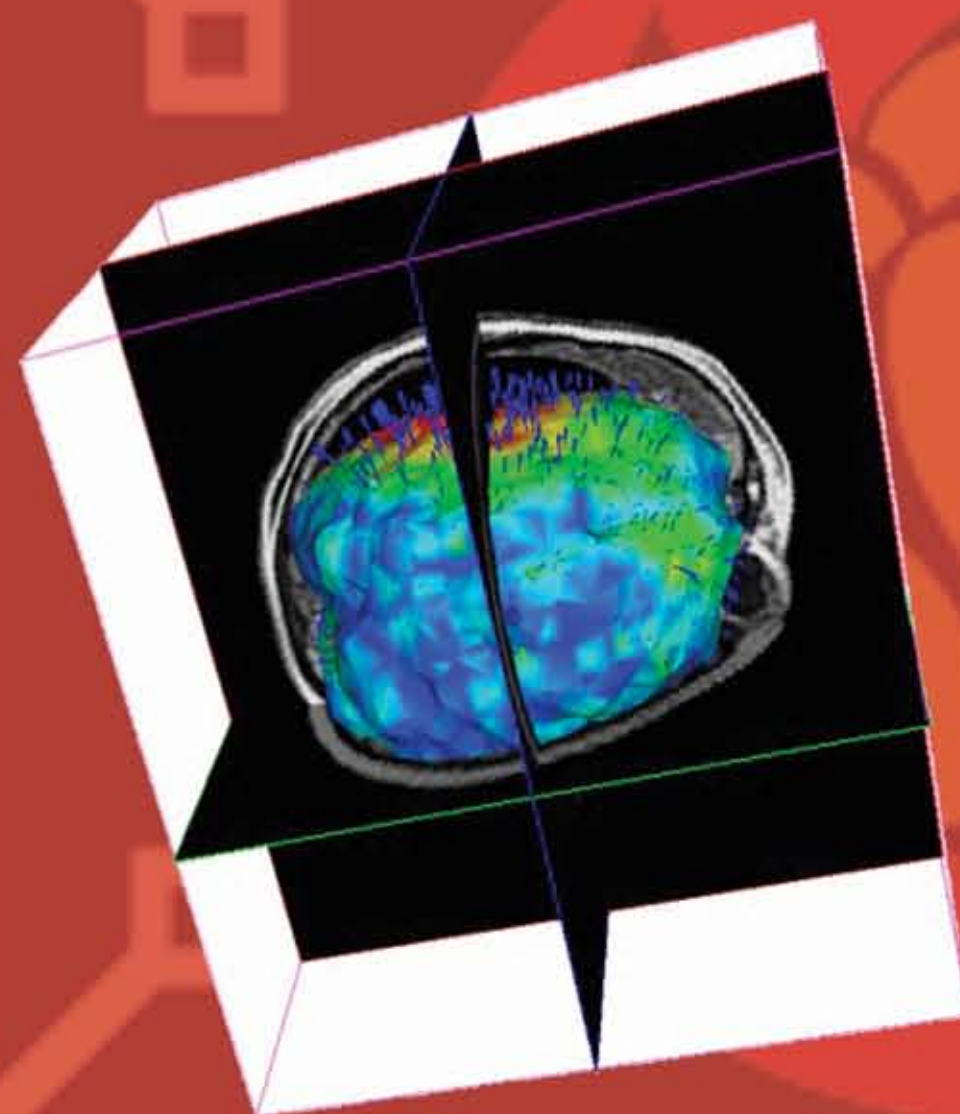
# 20 Years - Unleashing the Power of HPC

# 2000

**2000 Chair**  
**Louis Turcotte**  
 Dallas, TX



The KLAT2 Cluster Wiring



Visualization of Mechanical Deformation During Neurosurgery

## 2000

**Notable Systems first mentioned this year in the proceedings:**

- SGI Octane
- GRAPE-6
- MDMWINEGRAPE-2

**Notable Processors**

- AMD Athlon IA32
- IBM PowerPC 630
- Intel Pentium III

**Noteworthy Architecture Topics**

- Single-sided communications
- Automatically tuned communications
- Volunteer supercomputing
- Standard API's for hardware performance counters
- The Data Grid

**Notable Operating Systems**

- Microsoft Windows 95
- FreeBSD

**Notable Programming Languages**

- Single Assignment C
- ZPL
- Co-Array Fortran

**Research Machines**

- KLAT2
- Bunyip

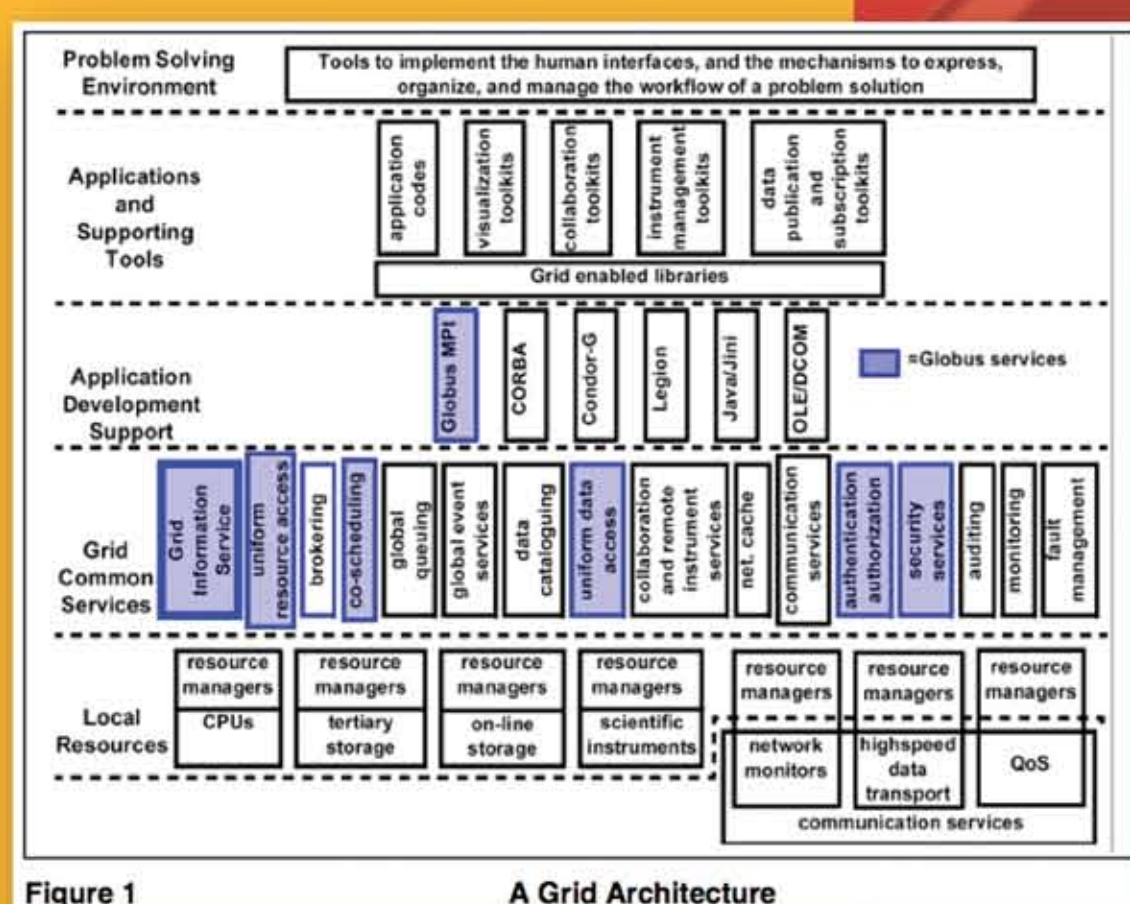


Figure 1 A Grid Architecture

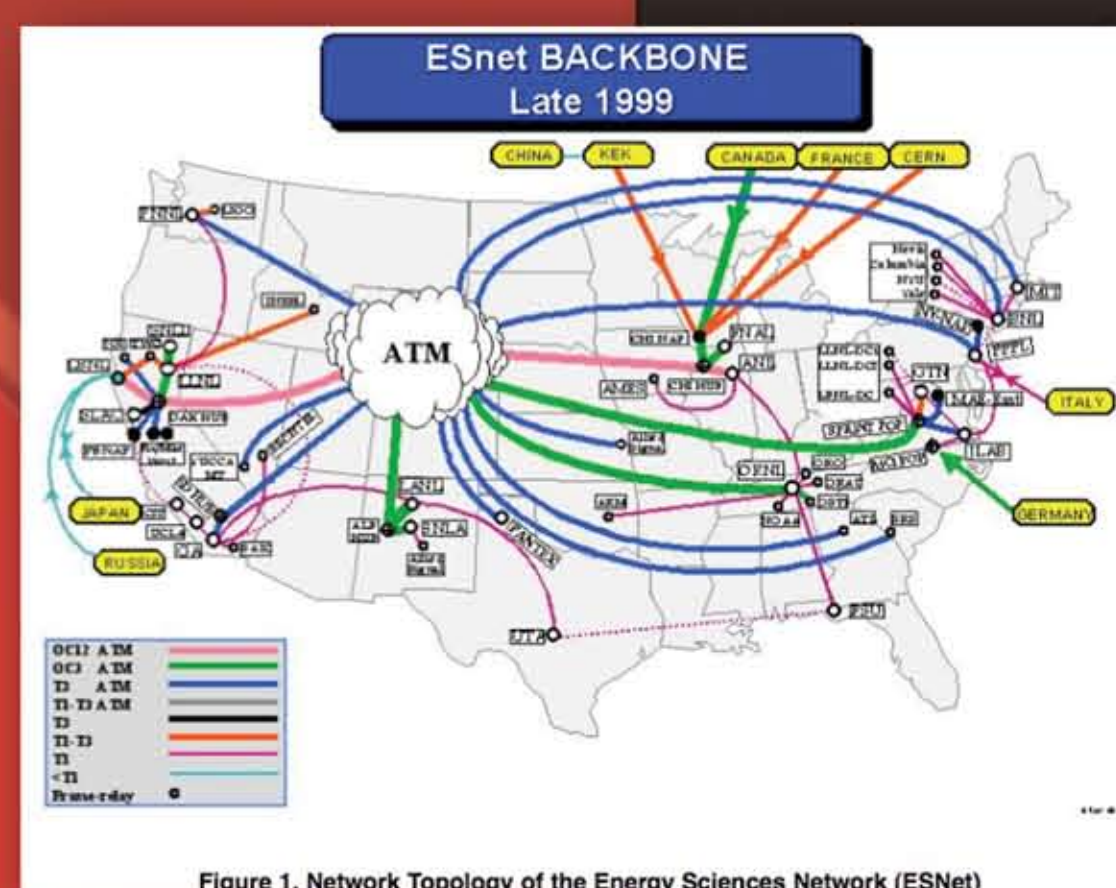


Figure 1. Network Topology of the Energy Sciences Network (ESNet)

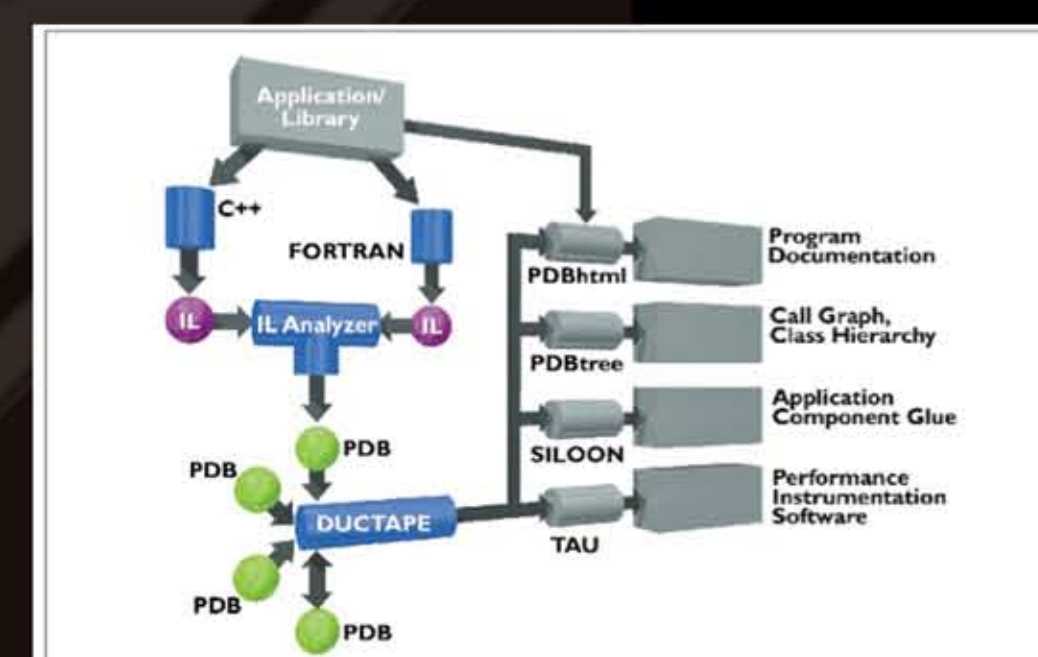


Figure 2. Source code is parsed by compiler front ends. PDT's IL Analyzer processes the resulting intermediate language trees. PDT's DUCTAPE library makes the contents of PDB files available to applications. Existing applications are shown in the right half of the figure.

Object-Oriented Software Analysis Tool