

## BOOTH MAP

### 1 Immersive Workbench

- Biological Metaphors for Feature Extraction in Large Datasets
- IBEAM: Interoperability-Based Environment for Adaptive Meshes
- Interactive Large Screen Visualizations

### 2 • Coupling Engineering Applications on the Information Power Grid: A CORBA-Based Approach

- 128-Node Information Power Grid Cluster

### 3 • Simulation-Based Medical Planning for Vascular Surgery

- ### 4 • Common Component Architecture (CCA): A Demonstration of the CCA Forum Technologies
- Dusty Rings: Signposts of Recent Planet Formation
  - Estimating the Circulation and Climate of the Ocean: The Circulation Pathway of Subtropical-Tropical Exchange
  - Shuttle Radar Topography Mission (SRTM): Science Processing on a Supercomputer
  - 3D Adaptive Grid: MHD Simulations of the Global Heliosphere
  - Using Hollywood for Science: Animation of a Proposed NASA Mission Using Maya 4.0

- ### 5 • AeroDB: Automated CFD Parameter Studies on Distributed Parallel Computers
- Information Power Grid (IPG)
  - IPG Job Manager
  - IPG Resource Broker
  - Performance Prediction
  - Tool Agent Framework-Java (TAF-J) - Connecting Aerospace Analysis Tools with the Information Power Grid

### 6 • Multi-Level Parallelization and Optimization Environment

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- Cart3D: A Package for Automated Grid Generation and Aerodynamic Database Creation

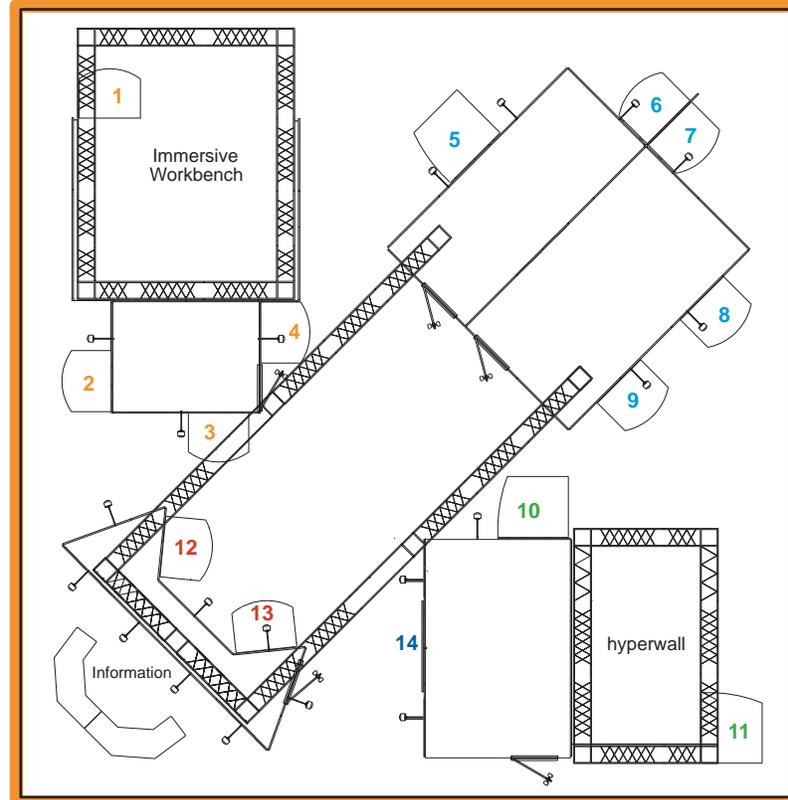
- ### 8 & 9 • Beowulf/Mini-Grid System Software
- Coven Parallel Programming Framework
  - The Parallel Virtual File System Version 2
  - Reconfigurable Computing Technology

- ### 10 • Programmable Visualization of EOS DAAC Data
- Real-Time Ray Tracing with the University of Utah

- ### 11 • The hyperwall: A Multiple Flat-Panel Display Wall for High-Dimensional Visualization

- ### 12 • Modeling the Earth's Atmosphere at the Data Assimilation Office
- Sci-Interactives: Innovative Science Outreach from Truth-N-Beauty Software and NASA CT
  - Ultra-High-Resolution Astronomy: Phasing of Arrays of Formation Flying Spacecraft

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- IBEAM: Interoperability-Based Environment for Adaptive Meshes



### 14 Video and Poster Wall

- SC2002 Conference Opening Video
- Capability Computing at the NASA Ames Research Center: Solving the Toughest Computational Problems
- Cart3D: 2002 NASA Software of the Year
- Computational Science at Goddard Space Flight Center
- Computing, Information, and Communications Technology Program (CICT)
- Computing, Networking, and Information Systems Project (CNIS)
- Consolidated Supercomputing Management Office (CoSMO)
- HiMAP: High-Fidelity Multidisciplinary Analysis Process
- Information Power Grid (IPG) Accomplishments - 2002
- MU-SPIN: Extending Computing Opportunities to Minority Institutions
- NASA-DeBakey Ventricular Assist Device (VAD) - 2001 NASA Commercial Invention of the Year
- NASA Research Highlights Video
- NASA/SGI Develops 1,024-Processor Coherent Shared-Memory Origin 3000
- Numerical Propulsion System Simulation (NPSS)
- Supercomputing at Goddard Space Flight Center