NASA CCA Demonstration


Jet Propulsion Laboratory
California Institute of Technology

http://pat.jpl.nasa.gov/
Overview

- This presentation, being shown in the NASA booth, is a PowerPoint loop of slides.
- The work done was an evaluation of the CCA software for NASA Earth Science Technology Office's (ESTO's) Computation Technologies (CT) Project.
- The basic evaluation was successful in FY02.
- In FY03, we will use CCA to componentize a coupled atmosphere/ocean climate model.
Application

- Unstructured Adaptive Mesh Refinement for an Electromagnetic Simulation
- Uses PYRAMID AMR library
- Output:
  - Performance of the componentized application vs. the original application
Results

![Bar chart showing results for different numbers of processors with runtime in seconds. The chart compares driver/library and components, with runtime values from 1 to 10000 seconds.](image)

- **Number of Processors**: 2, 4, 8, 16, 32
- **Runtime (s)**: 1 to 10000

The chart illustrates the performance of driver/library and components across different numbers of processors.