

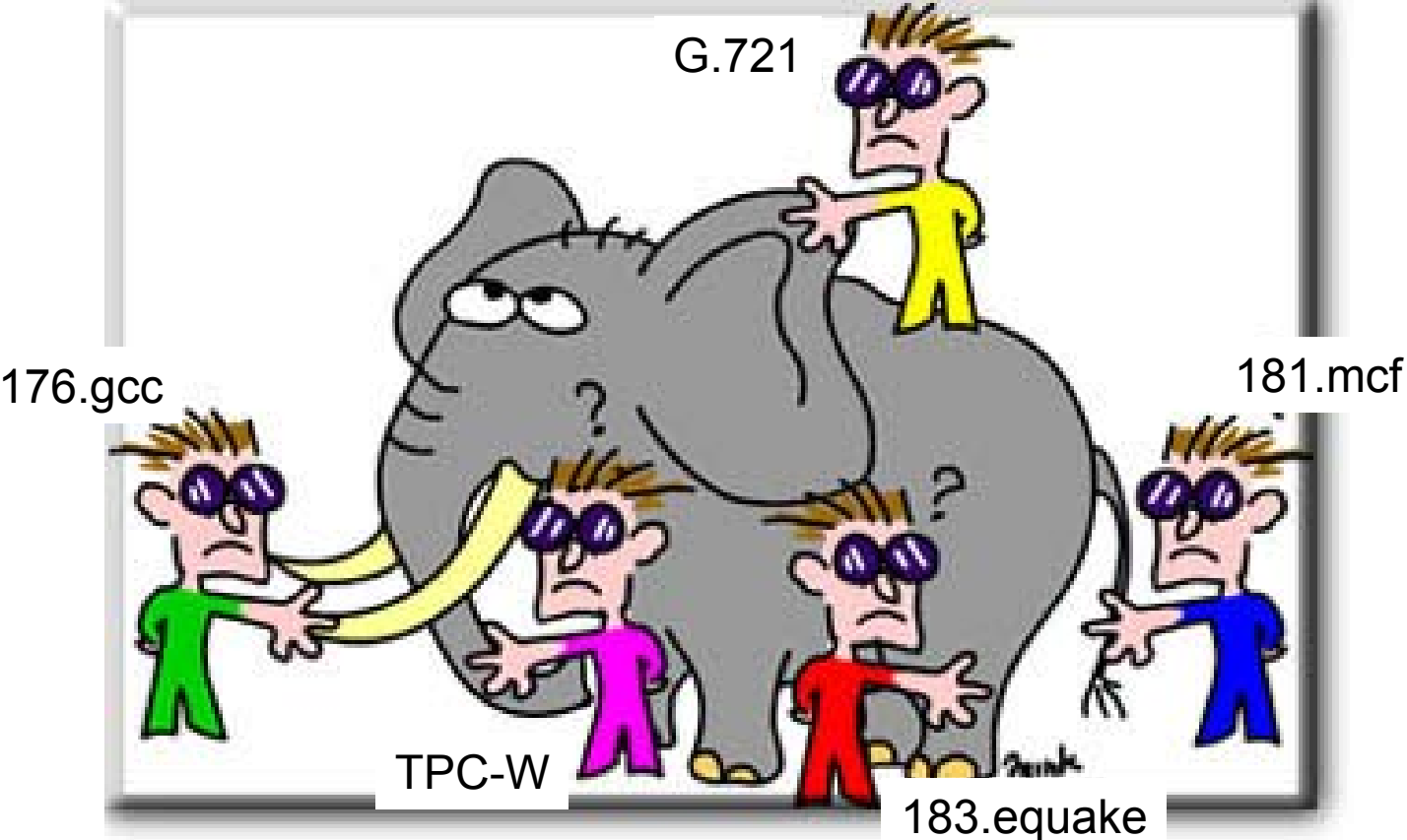
Benchmarks of Yesterday....

- Spec
- TPC
- Mediabench
- Synthesized snippets of microsoft applications

...used to design the machines of tomorrow??



Application Trends



Let's look at the whole elephant



Motivation for Polymorphism

- Image recognition
 - Sensor signal processing (streaming)
 - Motion tracking (streaming)
 - Feature extraction (streaming)
 - Classification (ILP, TLP)
- Video server
 - GUI (ILP)
 - Database query (TLP/commercial)
 - Compression (streaming)
- Quantities of each category vary depending on application!

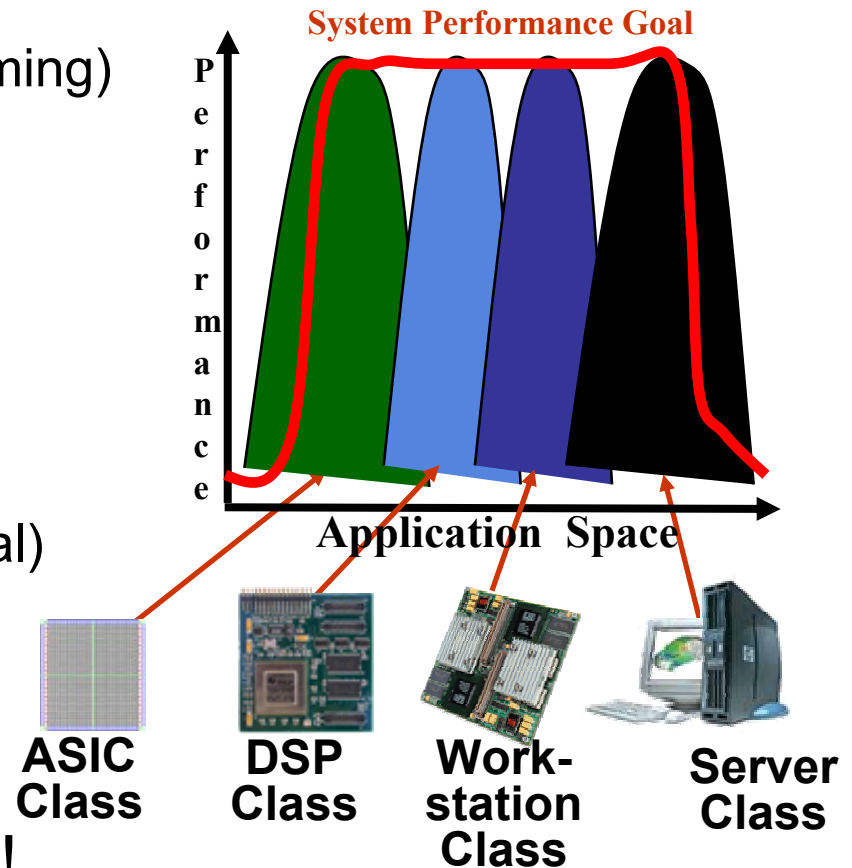


Diagram courtesy of R. Graybill (DARPA)



Challenges for Workload Characterization

- Do better job of anticipating future individual applications.
- Evaluate complex applications
 - Classify and quantify components.
- Develop representative representative workloads for complex applications.

