Monday May 3

TERM PROJECT REQUIREMENTS

“New” Due Date: May 12th, 2010 (instead of May 10th)

[Revised Reports of Projects 1-3]
- **User Manual**: “turn key” / Interface / Functionality
  Level
- **Developer Manual**: APIs
  How to extend
  Class description
  Class diagram
  etc.
- Quality Attributes [1-3] as applicable to your project
- “Conclusion” section: Introspective (What have you done right/wrong?) assessment
  [½ page] about:
  - The process of software development that you have undertaken this semester
  - About your project

Did we get an email from Registrar about e-Face?
The deadline is Tuesday, May 4.

Today we’re talking about Power-Aware Computing.

Recipe for Efficiency: Principles of Power-Aware Computing

Power and energy considerations are en vogue.

Reducing energy needs = reducing cost.

Environment considerations – Computing equipment in the US consumes more than 20 million gigajoules of energy per year, the equivalent of four million tons of carbon-dioxide emissions into the atmosphere. Reducing energy needs = reducing waste.

Overprovisioning leads to inefficiencies when the system isn't operating at the resource-utilization capacities that account for future growth.
How to reduce waste:
   Use lower power alternative.
   Energy proportionality – Scale down energy for unused resources.
   Match work to power-efficient option.
   Piggyback or overlap energy events.
   Clarify and focus on required functionality.
   Cross layers and broaden the scope of the solution space.
   Trade off some other metric for energy.
   Trade off uncommon-case efficiency for common-case efficiency.
   Spend someone else's power.
   Spend power to save power.