Outline for February 26, 2008

1. Isolation: virtual machines
   a. What it is
   b. Example: KVM/370
   c. Example: VAX/VMM

2. Isolation: sandboxes
   a. What it is
   b. Adding mechanisms to libraries or kernel
   c. Modify program or process to be executed
   d. Example: Janus

3. Covert channels
   a. Storage vs. timing
   b. Noise vs. noiseless
   c. Existence
   d. Bandwidth

4. Covert channel detection
   a. Noninterference
   b. Shared Resource Matrix Model
   c. Information flow analysis
   d. Covert flow trees

5. Noninterference
   a. Version of the Unwinding Theorem
   b. Specifications of SAT
      i. object_create
      ii. can_read
      iii. readable
   c. Example analysis for SAT

6. Shared resource matrix methodology
   a. Identify shared resources, attributes