Outline for May 19, 2006

Reading: text, §17.3—17.3.1.2

1. Greetings and felicitations!
2. Covert channels
   a. Storage vs. timing
   b. Noise vs. noiseless
   c. Existence
   d. Bandwidth
3. Covert channel detection
   a. Noninterference
   b. Shared Resource Matrix Model
   c. Information flow analysis
   d. Covert flow trees
4. Noninterference
   a. Version of the Unwinding Theorem
   b. Specifications of SAT
      i. object_create
      ii. can_read
      iii. readable
   c. Example analysis for SAT
5. Shared resource matrix methodology
   a. Identify shared resources, attributes
   b. Operations accessing those attributes
   c. Building the matrix
      i. Covert storage channels
      ii. Covert timing channels
   d. Issues about the methodology