

Lecture 13 Outline

Reading: *text*, §16.1–16.4, 32

1. Entropy-based analysis
 - a. Flow of information from x to y
 - b. Implicit flow of information
2. Non-lattice policies
 - a. Transitivity
 - b. Information flow policy
 - c. Confinement flow model
3. Transitive non-lattice policies
 - a. Quasi-ordered sets
4. Non-transitive policies
 - a. Dual mappings
 - b. Theorem: a dual mapping from a reflexive information flow policy into an ordered set is order-preserving
5. Compiler-based flow mechanisms
 - a. Scalar declarations
 - b. Array declarations
 - c. Assignment statements
 - d. Compound statements
 - e. Conditional statements
 - f. Iterative statements
 - g. Goto statements
 - h. Procedure calls
 - i. Exceptions and infinite loops
 - j. Semaphores
 - k. Cobegin/coend
 - l. Soundness
6. Execution-based flow mechanisms
 - a. Fentons Data Mark Machine
 - b. Variable classes