

# Reading 4: Echelon

17-654/17-754: Analysis of Software Artifacts  
Jonathan Aldrich (jonathan.aldrich@cs.cmu.edu)

Due: Monday, March 27, 2006 (5:00 pm)

10 points

Turn in a file named `<username>-17654-R4.{txt,doc,pdf}`, where username is your Andrew id. At the top of the document, state your name and Andrew id.

## Readings:

- Amitabh Srivastava and Jay Thiagarajan. Effectively Prioritizing Tests in Development Environment. International Symposium on Software Testing and Analysis, 2002.

*Note: When answering these reading assignment questions be concise. It is expected that each question set can be answered adequately in a page of text or less. Rambling answers with irrelevant detail will not be received warmly. On the other hand, answers should contain enough detail to understand clearly what you are saying. Good English grammar and syntax is important, as always.*

## Reading Objectives:

- To understand the techniques used for test selection and prioritization in the Echelon system, and how to most effectively take advantage of this tool in the development process.

## Questions:

- Echelon's effectiveness depends in part on the change you make to your program before running it. What is an example of a change scenario where Echelon would not be very helpful in prioritizing test cases?
- If you were using Echelon in practice, and you didn't have time to run all of the tests in your test suite, how would you decide where in the priority list of tests to stop testing? Why?  
*Note: your discussion should be more interesting than "test until time runs out"*