

Reading 2: Fugue

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

Due: Thursday, February 23, 2006 (5:00 pm)

10 points

Turn in a file named `<username>-17654-R2.{txt,doc,pdf}`, where username is your Andrew id. At the top of the document, state your name and Andrew id.

Readings:

- Robert DeLine and Manuel Fähndrich. The Fugue Protocol Checker: Is Your Software Baroque? Microsoft Research Technical Report MSR-TR-2004-07, January 2004.

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 analysis techniques, their benefits and drawbacks, used in the Fugue system, which allows developers to express protocols using annotations similar to types, and can soundly check those annotations.

Questions:

- The Fugue system can check protocols similar to those that the Metal system checks, but it does so using quite different analysis techniques. Briefly describe at least two important differences between Fugue and Metal, as well as at least two advantages and two disadvantages of Fugue's design relative to Metal's.