OPEN SEMINAR SERIES

THURSDAY 10th May 2007
12:00 – 13:00

SEERC Seminar Room
SEERC Bldg

JWalk - Lazy, Systematic Class Unit Testing

By

Dr. Tony Simons

Senior Lecturer
Department of Computer Science
University of Sheffield

ABSTRACT

JWalk is a lazy, systematic class unit tester. It performs bounded, exhaustive testing on an arbitrary compiled Java class, supplied by the programmer. It is qualified as "lazy" because the programmer may supply more or less information about the class's intended specification. As more information is supplied, the quality of the generated tests improves and manual inspection of the test report is gradually replaced by fully automated checking. It is also qualified as "systematic" because it generates test sequences corresponding to all possible interleavings of the class's methods (local and inherited) and eventually creates complete functional test sets, validating the class according to a state-based or algebraic model. However, the programmer does not have to develop a formal specification up front; rather, the tool infers the specification from hints supplied by the programmer during the testing process, and from smart assumptions made about the intended design of the code. JWalking is a supremely lazy way to do extremely thorough unit testing!

The seminar series is open to all members of *staff* and *students* of CITY and to any *externals* that wish to attend.

University of Sheffield

CITY
Affiliated Institution of the
UNIVERSITY OF SHEFFIELD

A R e s e a r c h C e n t r e o f t h e U n i v e r s i t y o f S h e f f i e l d a n d C I T Y L i b e r a l S t u d i e s