Case Study Planning Assignment

Due Date: Thursday, March 22

Recall that the main formal requirement in this course is a "portfolio" of case study examples, worked out using any or all of the methods introduced in the course. This is to be handed in on the last day of classes. Each case study group may hand in a single portfolio. (Yes, groups with more people will probably have thicker portfolios than groups with fewer people.)

To get started on this, you should start meeting with your case study groups, if you haven't already. Invent some small examples and try the various methods we are learning, manual and tool-based, on those examples. Plan for some larger example(s) that you might want to tackle later.

To make sure everyone gets started, I would like each group to **hand in, on Thursday, March 22, a one-page outline of what you are doing in your case study**. This should describe the following:
Generally, which examples are you tackling?
What are you using for toy examples?
Which larger system(s) or algorithm(s) will you model?
Which properties are you going to try to check/prove/derive?
Which methods/tools do you think you will want to emphasize?

One possible problem is that by March 22, we won't have gotten to some of the methods in class, in particular, those involving timing and hybrid behavior. But you can look ahead at some of the papers, ask me for some information about them, and make your best guess.

I would like to meet briefly with each case study group once you've had a chance to get started.

Here is my latest information about groups. Please send me any corrections.

Case Study I: Data management in distributed networks

John Bible - biblej@mit.edu
David Liben-Nowell - dln@theory.lcs.mit.edu
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Ilya Shlyakhter - ilya_shl@mit.edu
Rui Fan - rfan@theory.lcs.mit.edu
Dimitris Vyzovitis - vyzo@mit.edu
Josh Tauber - josh@theory.lcs.mit.edu

Case Study II: Reliable network communication

Case Study III: Mobile Computing

Mandana Vaziri - vaziri@lcs.mit.edu
Chris Luhrs - cluhrs@mit.edu
Wei Shi - shi@mit.edu

Steve Bauer - bauer@mit.edu
Rodrigo Rodrigues - rodrigo@lcs.mit.edu

Case Study IV: Automated Transportation

Chung-Yao (Isaac) Kao - cykao@mit.edu
Jayakanth Srinivasan - jksrini@mit.edu (Hybrid systems)
Artur Arsenio - arsenio@ai.mit.edu (Hybrid systems)
Aisha Walcott - aisha@mit.edu
Natasha Neogi - neogi@mit.edu

Case Study V: Object-oriented programming

Jennifer Q. Liang - qliang@mit.edu
Bryan Ford - baford@mit.edu
Stanislav Funiak - stanf@mit.edu
Darko Marinov - darko@mit.edu
Ken Takusagawa - kenta@mit.edu

Case Study VI: Biological Systems/gene expression

Georg Gerber - georg@mit.edu
Reina Riemann - riemann@mit.edu

Case Study VII: Security of Cryptographic Protocols

Christos Kapoutsis - cak@theory.lcs.mit.edu
Jon Herzog - jherzog@mit.edu

Case Study VIII: Operating Systems

Peter Portante - portante@mit.edu
Omprakash Gnawali - om_p@mit.edu