DEVELOPING CORRECT DISTRIBUTED SYSTEMS: POST-MORTEM REPORT

Helgi Leifsson

Computer Science B.Sc.

2010

Author: Helgi Leifsson
SSN: 121176-5489
Instructor: Marjan Sirjani

Tölvunarfræðideild
School of Computer Science

Post-mortem Report

Scheduling could have been done better as more time could have been spent on the project. As this was a research project there were a lot of unknowns and very hard to actually plan anything ahead. A lot of time was also spent on material and code that didn't show up in the final product as such. Many dead ends were explored but overall the plan was successful and all the necessary ingredients made it into the report.

Many would have been surprised to see just how much of a problem concurrency really is and the ways used to work around it. An oversimplification is that a big part of working with concurrency is just using methods and tools to make something that is supposed to be operating concurrently, do it in a sequential way. Also, even though a lot of work has been put into solving the problem of concurrency, there have been few breakthroughs and progress has been slow.

The thing that went well was creating the models once one got the hang of it. The difficult part was to start using the model checker which required a lot of trial and error, there was little in the way of any sort of manuals, most of the literature revolved around theory and technical difficulties plagued the setting up of a workspace. After that was done however, once a few running models had been made, making new ones almost seemed second nature.

Doing the project taught me many things such as doing independent research but most importantly, that there are ways to think a concurrent system through, before doing any coding.