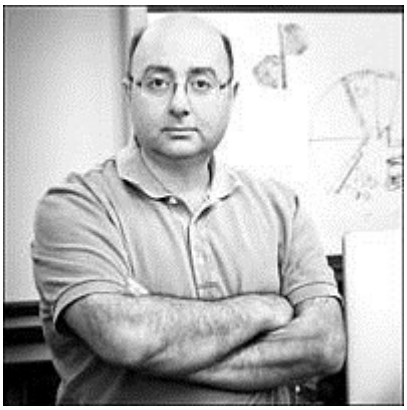
Nicolas Yates - Lecturer (School of Computer Science)



"I'd really like to give my students something more useful for their studies.

Background

Age: 50

Occupation: University Lecturer

Location: School of Computer Science, University of Birmingham

Technology Level: As someone who has worked/taught in Computer Science for many years, Nicolas is fully capable of using any technology, old or new

Description

Nicolas is a lecturer in the School of Computer Science at the University of Birmingham. He has been a lecturer for multiple years now after studying there during his education. Nicolas specialises in low-level programming and hardware and although he still carries out research, he much prefers teaching undergraduates at the university. He teaches 3 different modules during the year, one of which is the Computer Systems & Architecture module.

Being someone who is generally well prepared, Nicolas spends a lot of time prior to his lectures working on slides, handouts and other supplementary material such as code for his students to run and edit at their own will. For this reason, he ends up writing a lot of MIPS assembly code for the module, which he does by typing it up in his favourite text editor and then tediously debugging it within Spim simulator. This takes him a very long time and he would very much like to speed up this process.

Nicolas likes to keep things simple in his lectures, even when difficult content is being covered and so actively utilises simple diagrams, usually colour coded, to help the student's understanding of the material. Students have responded to positively to this, and so he would like to translate into the way he show's his assembly code working.

Goals

- Wants to help his students gain as high marks as possible in the Computer Systems & Architecture module.
- Wants to be able to use visual representations as aids to his teaching/lecture material.
- Wants a nicer environment to write all of his demonstration assembly code, so he can write and run his code in one single package.

Current Frustrations

- At this current moment in time, Nicolas has to use Spim simulator for all his demonstrations and also to give to his students to use for their assignments etc. because it is the most suitable for running MIPS assembly code.
- He doesn't like teaching using Spim Simulator because firstly, it is really not suitable for projecting onto a screen since everything is highly text based. Secondly it is not very self-explanatory. In order to give the students a good understanding, he needs a simple to understand projection on screen to aid what he is saying.

Scenarios

- Write and run (with error checking) some MIPS compatible assembly code in a single easy to use package, saving him time, allowing him more time to prepare for lectures.
- Run some code/algorithms on the simulator in a lecture scenario so that it benefits the student's learning/ understanding.
- Giving some context to his lectures by running algorithms already known by the students.