



OpenNICTA Open Source Software Information and Video Transcript

Software name: MiniZinc

Software description: MiniZinc is a medium-level modelling language. It is high-level enough to express most CP problems easily, but low-level enough that it can be mapped onto existing solvers easily and consistently. It is a subset of the higher-level language Zinc.

Project description: MiniZinc was developed as part of the [ATOMIC/G12 Constraint Programming Project](#).

Link to Software: <http://www.g12.csse.unimelb.edu.au/minizinc/>

Video Transcript

Interview with Ralph Becket

Tell us about yourself and the research you are currently working on

Ralph: I'm Ralph Becket, I'm a Research Fellow with the G12 project and our software that we've released on open source is called MiniZinc.

Tell us about your open source software

Ralph: MiniZinc is a constraint modelling language. It's used for industrial optimisation problems, so these are things like – well at the silly end of the spectrum you have Sudoku and at the more interesting end you have any kind of logistics or timetabling problems. We even have some work going on trying to optimise radiation therapy for cancer patients. The idea is that you simply describe the problem as a piece of mathematics and you feed it into a solver and that works out how to produce the optimal answer.

Why open source?

Ralph: Partly because we are generous guys and partly out of self interest. Right from the outset we wanted a language to be independent of the underlying solver technology, and the constraint community really needs a common language to express all the models. It's very difficult for people to agree that two solvers have actually run the same problem at the moment. The other thing we want to do is to encourage people to use it and that hopefully will lead to them feeding their research back into our project.