GRUNDLAGEN DER KÜNSTLICHEN INTELLIGENZ
Exercise 3: CSP – Installing SAVILE ROW and MINION 16th November 2018
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1 Introduction

There are two softwares that we need to install for Exercise 3, i.e. SAVILE ROW and MINION. Software SAVILE ROW is a *constraint modelling* assistant, whereas MINION is a *constraint solver*. The whole algorithm for solving the CSP problem is done under MINION. However, modelling directly with MINION could be tedious. We use SAVILE ROW assistant to help with modelling the problem. We can instruct —or tailor— SAVILE ROW[1] to use another constraint solver, but since MINION is the only solver fully supported by SAVILE ROW, and it is installed automatically with Savile Row, we will stick with MINION.

2 Instructions

1. Download SAVILE ROW VERSION 1.6.5 at the following link:

   `http://savilerow.cs.st-andrews.ac.uk/releases.html`

   ...and extract to a particular folder.

2. For testing, run the following command (in command prompt or powershell) in the folder.
   If you run Windows:

   ```
   .\savilerow.bat -in-eprime .\examples\sudoku\sudoku.eprime -in-param
   examples\sudoku\sudoku.param -run-solver -minion-bin .\bin\minion.exe
   ```

   And if you run Linux or Mac:

   ```
   ./savilerow -in-eprime ./examples/sudoku/sudoku.eprime -in-param
   examples/sudoku/sudoku.param -run-solver -minion-bin ./bin/minion
   ```

3. If it works, you should see the solution created in the following file.

   `\examples\sudoku\sudoku.param.solution`

3 Further reading

I strongly recommend you to read the ESSENCE' and SAVILE ROW manuals. Both of them are provided in the installation folder of SAVILE ROW. ESSENCE' manual provides the tutorial of the language syntax.

[1] Savile Row is a very famous street in London for bespoke tailoring of men clothing: `https://en.wikipedia.org/wiki/Savile_Row#Tailoring`.