

# FreakSudoku

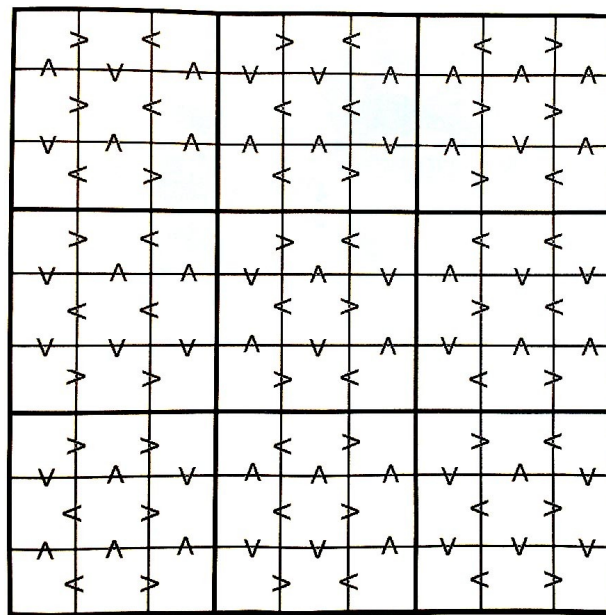
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September 8, 2016

## Abstract

First MAI-CPP assignment.

## 1 Introduction



FreakSudoku is a variant of sudoku where no initial values are given, but there are greater-than relations inside  $3 \times 3$  squares that the values must satisfy (see the picture).

One solution for the previous instance is

```
8 3 4 9 6 7 2 5 1
9 1 5 2 3 8 7 6 4
2 7 6 4 5 1 8 3 9
6 5 7 3 2 9 1 4 8
4 8 9 1 7 5 6 2 3
3 2 1 8 4 6 5 9 7
```

```

7 4 3 5 8 2 9 1 6
1 6 2 7 9 3 4 8 5
5 9 8 6 1 4 3 7 2

```

You have to write a MiniZinc model for FreakSudokus. The model must be parameterized in such a way that different puzzles can be passed over the model as .dzn files. The format of .dzn files has to be as follows:

```

horizontal =
[| ">","<",">","<","<",">",
| ">","<","<","<",">",">",
| "<",">","<",">",">","<",
| ">","<",">","<","<","<",
| "<","<","<",">",">","<",
| ">",">",">","<","<",">",
| ">",">","<",">",">","<",
| "<",">","<",">","<",">",
| "<",">",">","<","<",">" |];

vertical =
[| "^","v","^","v","v","^","^","^","^"
| "v","^","^","^","^","v","^","v","^"
| "v","^","^","v","^","v","^","v","v"
| "v","v","v","^","v","^","v","^","^"
| "v","^","v","^","^","^","v","^","v"
| "^","^","^","v","v","^","v","v","v" |];

```