Sudoku Solver

A Sudoku solving program that uses MATLAB to take input of Sudoku maze from an image file.

The repository has all user-defined functions used by author for the process.

Why was this made?

This project was made with the aims of learning some basics of image processing and harness the environment of MATLAB. In present times, Image Processing and Character/Object recognition is going to be a necessity sooner or later. Incorporating Image Processing to various daily appliance might make world a smarter and better place.

How can this be used?

* The project can solve a 9x9 Sudoku in 3 seconds including the image-processing time. Backtracking proves to be a great algorithm which is used in the Sudoku solving section of program.
* Instead of Sudoku solving, the project might be used to carry out several calculations on paper with some minor changes; saving the time of daily work of feeding it to the computer.
* A small step towards taking inputting device to next generation.

How to use?

The main program is the BackTrackAlgo.m.

FilterAndOCR.m is the image-processing script.

SolveSudoku.m solves the Sudoku using Backtracking algorithm.

Further explanation of most functions and scripts have been described in code itself.