

Sudoku

Getting Started

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Welcome to Sudoku

This manual will help to quickly solve any sudoku in the universe and generate original ones to keep you busy.

Sudoku integrates two applications in a single window for a seamless user experience:

- **Solve.** Cracks any puzzle in this world in as much time as the blink of an eye.
- **Generate.** Does serious number-crunching creating original grids worthy of publishing.
- **Check.** The starting point for a novice to learn to solve grids, with hints too.

About the User Guide

This whole program is designed to be intuitively obvious for someone acquainted with the basics of using a computer. It is for those new to the puzzle called Sudoku that this manual exists. For the rest, you can safely skip reading this any further.

About Sudoku

Sudoku is a grid (or a tabular) puzzle consisting of 81 small cells each having a number in them. These 81 cells are grouped into 9 bigger boxes, which further group into the complete square grid which has come to characterize sudoku.

In general, sudokus may be of various dimensions in terms of number of cells and may even be contained in rectangular boxes instead of 3x3 square boxes. However, due to the constraints on window size (self-imposed) and the limitations of EzWindows, these have not been implemented as such.

The basic rules of sudoku flaunt its elegance and hide the fiendish difficulty of sudokus popularly known as the Golden Nugget and Inkala Puzzles, deemed as the hardest in the world based on solving by logic. While this program solves these in hardly a few milliseconds, it is merely due to the remarkable number-crunching ability and enormous memory available on modern processors that makes a brute-force guessing algorithm seem so elegant and quick. Even application of 35 complicated strategies by this solver at www.sudokuwiki.org/sudoku.htm fails to solve these. Anyway, here are the rules:

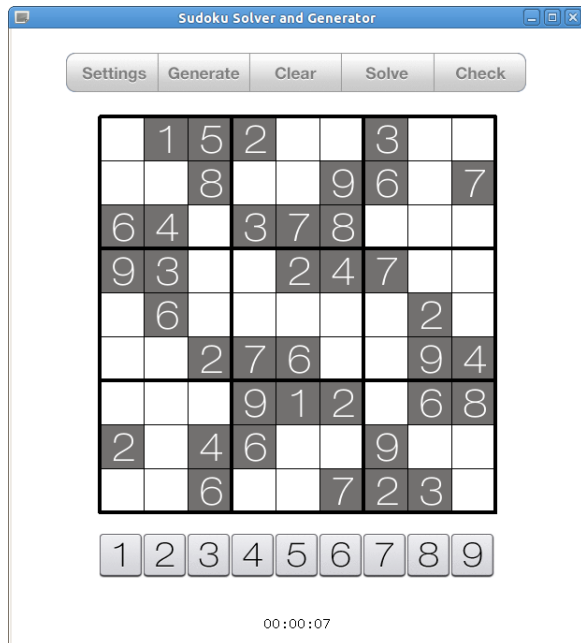
1. Each row and column must have all numbers from 1 to 9 (with no repetition).
2. Each square box must have all numbers ranging from 1 to 9.

One myth about sudoku is that it involves mathematics. As our SRS goes, the images used in the program can be freely replaced by pictures of logos of various brands, Greek symbols, alphabets or even fruits. Sudokus require only human logic to solve, no maths.

Finally, a lot of strategies are listed on the net. But rest assured, you need not even try reading them. Instead, evolve your own methods - it will be much more fun and further this program generates puzzles that require only rudimentary logic to solve unless you fiddle with the default parameters for sudoku generation (explained shortly)...

The Central App Window

All three Sudoku applications share the same window and are easily invoked by using the self-explanatory buttons on the app bar.



The App Bar

At the top of the application window, the app bar provides controls for common tasks. Each button does what it says except the fact that it may do more too. Clicking solve will ask you whether you want merely a hint or want the program to solve the whole grid at once. Also, clicking clear when no cell is selected will ask you whether you want to clear the entire grid or not.



The Settings Window

There are various parameters that decide the appearance and ease of solving of a grid generated by the program. Here in the settings window, you can change the difficulty level and whether or not there is any guesswork (or advanced logic) required to solve the sudoku. With regards to the appearance, grids can be symmetrical or asymmetrical (more of it on Wikipedia) and the program allows you to choose that. The default settings are displayed in the screenshot below. Lastly, you can save and load grids into .sdk files as when you desire. Unfortunately, given the limitations of EzWindows, the filename must be entered via the terminal - in other situations the program need not be executed via the terminal. The filename of the saved grid can be renamed only later by you.

