System Requirements

8KB RAM
16KB VRAM
50/60 Hz

Credits

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Coding and Graphics

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数独 SUDOKU

Instruction Manual

MSX 32K

SUDOKU

The Game

To solve a Sudoku puzzle, place a number into each cell so that each row, each column, and each small 3x3 box within the larger puzzle will contain every number from 1 to 9. In other words, no number may appear more than once in every row, column, or 3x3 box.

The game is initialized with predefined numbers and the objective is to complete the puzzle with the missing numbers that will lead to the correct solution.

The game features three levels of difficulty, *novice*, *adept*, and *expert*. Select the desired level in the main menu using the joystick or cursor keys, then press space or a joystick trigger to start a game.

Controls

Move the blinking cursor with the cursor keys or a joystick plugged into port 1 or 2. The location of the cursor tells the player where a number will be inserted or modified.

Numbers can be entered either from the numeric keypad, keys **1**-**9** or by using the left and right joystick buttons. A number entered by the player can always be changed or cleared. A number is cleared by pressing **0**, **DEL** or **BS**.

At any time during the game it is possible to check that no duplicate numbers are entered in a column, row or 3x3 box. This is done by pressing the **c** key on the keyboard or both joystick buttons at the same time.

The game can be cancelled at any time by pressing the **ESC** key.

The music can be disabled and re-enabled by pressing the **m** key. This can be done either within the game or in the menu.

Solving Tips

The most common strategy for solving a Sudoku puzzle involves a combination of three different processes: *Scanning*, *Marking up*, and *Elimination*.

Scanning is performed throughout the solving process and there are two common methods.

The first is called cross-hatching. Each number 1-9 should be tested. For each number, all rows are scanned to identify a line within a 3x3 region that may contain a certain number. This process is then repeated with the columns. If a single row and a single column contain the given number, the number should be entered in the intersecting cell.

The second method counts numbers in columns, rows, and 3x3 boxes to identify missing numbers. The method can also be used to eliminate values that cannot be placed in an individual cell.

When no more numbers can be discovered through Scanning, some logical analysis is required. The first step is **marking up** the possible numbers that can be entered in a given box. The next step is **elimination** of numbers that was marked up in a box until only one choice is left. There are many ways of performing elimination. For example, if a row are missing the values 2, 4, and 7 and two of the three empty cells are marked up to have either the number 2 or 4. Then you know by elimination that the third cell must be a 7.

Good Luck!