Sunday Sudoku Solver

Welcome to the Sunday Soduku Solver.

I had considered doing some Sudoku related programming sometime back but I didn't make too much progress. Then recently I started doing the local Sunday paper's Sudoku. These are indicated to be 5 star difficulty and anyhow usually for me meant having to erase. I found the quality of the pencil erasers we had in the house to be sadly lacking, so set out to write a programmatic Sudoku eraser.
I would consider this idea to be what might be somewhat unique to this Sudoku software. You can find in some form most of what else this software will do. Maybe erase the last, but I haven't noticed any others that appeared to have a rewind back to last guess feature.

- Allow you to enter puzzles to solve
- Allow you to back up, the eraser feature.
- Include puzzles for you to solve of varying degrees of difficulty
- Provide hints
- Provision for print
- Allow you to save your puzzles
- Related to the above but maybe different. You should be able to import entire new game 'packs'.
- If you wish, let you try your hand at creating your own Sudoku puzzles.
- It should be able to solve the puzzles

Of course I have done these in the way I thought best, so at least in my opinion you are not only getting these but you are getting them done well. There will be more on how I provide these features later, but, if you look carefully you might find some other Sudoku or Su Doku puzzle software that will provide this list. But again, as far as I know it will lack the magic programmatic eraser. Really, I think that makes a good way to represent game state allowing even 'guesses' to be represented.

Now, how exactly does Sunday Sudoku Solver provides these items.

Enter puzzles to solve

This is pretty straight forward. With the "Setup" radio button selected, you click in a grid cell and enter a number. Continue until all known numbers have been entered. Editing is done to ensure what you enter is a number between 1 and 9, anything other than that is just ignored. More editing is done to ensure that you are not already duplicating a current row, column, or 3x3 grid value. When you complete entering the known numbers you select the "Solve" radio button to switch to the solving mode. Make as many entries as you can without guessing. If you get to where you need to guess

Backing up, the eraser feature.

There are the two video recorder type buttons provided for this, namely < and <<. The first, <, should erase whatever you last did. Simple. The second ties into the guess idea, it erases all entries for the current color. You would want to do this either if you realize you have reached an impossible situation or if requesting a hint a grid flashes red for the first entry for the current color indicating the guess was bad. The grid itself for the first guess of a given color is usually outlined in the color as an indicator that it is in fact first. You might want to note that since that is where you guessed wrong and may want to try a different guess.

Included puzzles

There are not as many as there might be of these. There are three reasons for that. First, a effort was make to make this program a useful tool for working with Sudoku puzzles you enter from newspapers or books, the number there could be unlimited. The second reason is that the program includes a generate feature. So the number you can create yourself is unlimited. The final reason would be that I am considering a future game archive option where puzzle collections in the XML format could be used to again provide an unlimited number of puzzles to solve. If you are interested in this feature or would like to see more builtin puzzles included I would be interested in hearing suggestions from registered users.

Hints

Normally no hints are provided. Some programs always show what numbers are possible for a grid, this program does not. Hint is a different mode selected with the "Hint" radio button. If you have anything incorrect it will flash red when Hint is selected. If you are currently on a colored guess sequence the first entry for that color will be the one that flashes. It is possible a prior color sequence could still be wrong. If nothing is wrong the blank squares will be replaced with question marks. Moving the mouse over those squares will pop up a light blue window showing the possible numbers for that grid square. Actually clicking on one you are over will enter the correct value. A pretty good hint for that square. Of course if you are in a hurry and just want to see the entire correct puzzle you can hit the "Finish" button.

Printing

Instead of supporting printing the program supports saving the current puzzle state to a PDF document. The widespread support options available for that should provide for portability options including and beyond print.

Save feature

OK, the lunch hour is over and theres a lot of puzzle left, what do you do? The save files are a XML format which can be opened back up right where you left off.

Puzzle collections

This feature isn't currently in the program. If interest in the program seems to be there it still might be. With a little more XML programming you could take the same format used in the save option and create puzzle collections that could be distributed seperately. I have seen other programs that use XML to represent game state but none of these seem to consider that this might provide a standard way for different programs to be able to use the same puzzles. Or even seperate puzzle collections to be 'published' that could be used by any program that supports the format. A thought anyhow. Again if the interest is there I might at least add collection support.

Finishing the puzzles

Well the program should be able to do this or some of the other features wouldn't work. So the program can, I gave you the option to do so as well with the "Finish" button. Normally I would imagine you want to solve the puzzle yourself rather than have the program do it but there might be occasions you just want to see the solution.