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About NimSim

NimSim v1.0 is a shareware game developed by Art & Darcy Araya of DARTCY productions. It is an adaptation of the mathematical game Nim. Nim is one of the oldest of all two-person mathematical games.

Click here for a detailed history of the development of Nim-playing computer programs.

I would like to dedicate NimSim to my two children, Heather & Josh. We played many a game of Nim using sugar packets while waiting for our meals in restaurants. Thanks guys for helping me to become a *Nim Master.*

How To Play

In this exciting game, you and the computer take turns removing marbles from the table. The player who removes the last marble from the table is the loser. At the start of the game there are five rows of marbles. During your turn you may remove any number of marbles from one of the rows. You must remove at least one marble on every turn; you cannot skip your turn. The computer will then make its move.

Please note that this explanation is only valid for the default setup. The number of rows can change as can whether the taker of the last marble is the winner or loser of the game. These items and more can be configured from the Options Menu.

How To Remove Marbles
First, select the desired marbles by clicking on them with the left mouse button. You will notice that a border appears around the marbles as you select them. If you change your mind about a selection just click on the marble again and the border will disappear. After you have selected all of the marbles that you wish to remove, click the button entitled **Remove Selected Marbles** or right mouse click anywhere on the game table. All the marbles which have borders around them will then disappear.

Menu Options

Switch Sides
Force the computer to make the next move.

First Move
This menu option allows you to select who makes the first move, you or the computer.

Layout
Choose from three sample layouts; 2-3-4, 3-4-5, or 1-2-3-4-5. These numbers represent how many marbles will appear in each row. For example, in the 2-3-4 layout there will be two marbles in row one, three marbles in row two, and four marbles in row three. In the random layout, anywhere from 2 to 30 marbles will be randomly positioned among five rows. The custom layout option allows you to create any layout of your choosing. Your custom layout must not have more than 5 rows, and each row must not have more than 6 marbles. When specifying a layout the dashes are optional. For example, you could enter either 6-4-2-1, or 6421.

Last Marble
Historically, Nim and its derivative games have been played with the taker of the last marble being the loser. This option allows for the interesting twist of the last taker being the winner.

Difficulty
Playing at its highest level, *Nim Master*, NimSim plays flawlessly. That is, given a game board position that is winnable, NimSim will find and make the winning move. Well, this is certainly frustrating to play against, especially if you are a child attempting to learn the game. Therefore, NimSim offers two easier levels, *Child*, and *Adult*.

Marbles...
Choose from a large variety of marbles of different colors and styles.

How To Register

NimSim is shareware which means that if you wish to keep this game you need to register it. To register your copy send the paltry sum of $5.00 U.S. dollars to:

DARTCY Productions
P.O. Box 714
Carmel, NY, 10512
USA

You will find a registration form called REGISTER.TXT in the same directory as NimSim, which can be viewed and printed from any text editor. Please fill out this form and send it along with your registration fee.

Registering will provide you with free upgrades to any future upgrades of NimSim as well as to unlimited free technical support. Most importantly, registering will give you that warm fuzzy feeling you get when you know you've listened to your conscience and done the right thing.

Once you register you will be sent a version without the various registration reminders. This new file will be sent to you electronically. You will need to have a way to accept files mailed to you electronically. At the low registration fee of $5.00, I cannot afford to mail out the upgrade. If you need to have the file mailed to you, add an additional $2.00 to cover the cost of diskette and mailing.

Thanks for your support!

Nim History

Nim possibly originated in China. Children play it with bits of paper, while adults can be found playing it with coins on the counter of a bar.

Nim was given its name by a Charles Bouton who named it after an archaic English word meaning to steal or to take away. Bouton was an associate professor of mathematics at Harvard University. In the year 1901 Bouton published a full analysis and proof containing a winning strategy for Nim. His strategy was based on the binary number system. Since the native language of a computer is based on the binary system, the creation of a Nim-playing computer was inevitable.

The first Nim-playing computer, called the *Nimatron*, was created in 1940. This **one ton** machine was built by the Westinghouse Electrical Corporation and was exhibited at the New York Worlds Fair. It played 100,000 games against spectators and attendants, and won an impressive 90% of the games. Many of the loses came at the hands of the attendants who had to show the incredulous spectators that the *Nimatron* could be beaten.

In 1951 a Nim-playing robot, called *Nimrod*, was exhibited at the Festival of Britain, and later at the Berlin trade fair. The machine was so popular that spectators entirely ignored a bar at the other end of the room where free drinks were being offered. Eventually the local police had to be called in to control the crowds.

There are many games derived from, or closely related to Nim. Two of the more notable ones being Tac Tix, and Match 23. Those of you who become *Nim Masters* and desire more of a challenge should look into Tac Tix (a.k.a. Nimbi).

NimSim is the first Nim-playing program for Windows that I have ever encountered. I will be very pleased if this version generates as much excitement as its predecessors... <Grin>

A word of thanks and acknowledgment must go to Martin Gardner who provided much of this historical account in his highly interesting book *Hexaflexagons and other Mathematical Diversions.*