

# GoMoku Narabe Help Contents:

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# 1. What is GoMoku Narabe?

The words GoMoku Narabe, which are pronounced GO-MO-KU-NA-RA-BAY, mean:

5 (GO)  
stones or pieces (Moku)  
in a row (Narabe).

GoMoku Narabe is an ancient Japanese game played, traditionally, on a GO\* board with GO pieces -- small, smoothly convex black and white stones.

The goal in GoMoku Narabe is to get 5 stones of the same color in a row -- which is not easy to reach since your opponent is continually blocking you as he or she tries to do the same.

The game is often described (unfortunately) as Japanese tic-tac-toe. Nothing could be further from the truth (See 'Okay, tell me about the deep Mathematics stuff' for more on this).

## [5. Okay, tell me about the deep Mathematics stuff.](#)

The game is non-trivial and has no known "do this and you'll always win or draw" strategy as in tic-tac-toe.

It has the advantages of being fast (you can play a lot of games in a half an hour), being easy to understand, and requiring practice to play really well.

\* Note: GO is another ancient Chinese and Japanese game, extremely complicated, that has nothing in common with GoMoku Narabe -- except of course, the board and the stones. In Go, the board is considered a field of 19 x 19 intersecting lines and the stones are placed on the intersections, not in the cells themselves.

## 2. How do you play?

The game is played on a GO board which, for the purposes of GoMoku Narabe, is a square playing board with 18 intersecting rows and columns.

Each player has a pile of GO stones -- one player holds black stones, one player holds white stones -- and each draws from his or her pile, in turn, to place a stone on the board.

White moves first in the game.

You can place your stones on any of the boards 324 squares -- you don't have to start in the center of the board if you don't want to.

There is no concept of 'capturing' your opponents pieces in GoMoku Narabe; you put stones down -- one stone to a square ( you can't stack your stones on top of your opponents ) -- and try to get 5 in a row.

The sole object of the game is to get 5 of your stones in a row -- up or down, right or left, or diagonally in any direction.

In deciding who plays the white stones ( and thus starts a series of games) and who plays the black stones, it is traditional to 'Jung' . Japanese do not flip coins; they Jung -- play the rock, paper, scissors game -- to decide (See ' What's this 'Jung-Ken-Po . . ' thing?' for more information about this).

The winner of a game gets to play white (move first) in the next game.

[4. What's this 'Jung, Ken, Po . . . ' thing?](#)

### 3. What do the items on the Menu do?

The menu items are very simple.

Exit -- gets you out of the game when you' ve had enough

Help -- gets you what little help you' re reading here

Undo -- lets you undo the last move, and only the last move, when you' ve changed your mind. There is no 'Undo' when you're playing the computer -- it would be unfair to your silicon based opponent.

' Its White' s move . . .' -- the far right of the menu bar is a reminder as to whose turn it is.

Options:

NewGame\* -- lets you clear the board and restart the game.

Play the computer -- a real test of skill  
(See 'How do you win the computer?' for more on this).

Alternate 'N in a row' games -- lets you explore other games.  
(See ' Okay, tell me about the deep Mathematics stuff' for more on this)

Hint -- get some help; only after the first move.

Note: The Hint you get is always at the expert level (Fire) and is the move the computer would make if it had your move to do. At any given time, from the computer's point of view, there may be several moves that are equally good. Thus you may not always get the same hint on successive clicks of the 'Hint' menu item.

[5. How do you win the computer?](#)

[6. Okay, tell me about the deep Mathematics stuff.](#)

\*Note: New Game is 'grayed-out' when playing the computer. To restart a game against the computer, please click off the 'Play computer' option and then click it on again.

## 4. What's this 'Jung, Ken, Po . . .' thing?

'Junging' means play the rock, scissors, paper game to decide an issue rather than flipping a coin. You probably played 'rock, scissors, paper' when you were a kid?

Basically two people form their hands into fists and chant "Jung, Ken, Po, Aiko, Desho" ( pronounced like Jung, Ken, Po, Eyeko, Deshow ) and then throw one of:

1. a still closed fist (rock),
2. a flat, open hand (paper),
3. scissors (form the scissors with their index and middle fingers).

Rock beats scissors, Paper covers rock, and Scissors cuts paper.

If you each happen to throw the same hand ( rock and rock, etc.), then you have to Jung again to break the tie. The one who wins gets to move first (move with the white stones).

Note: Actually, Jung, Ken is really JyanKen from the verb Jyanken suru, 'to throw or toss' . Aiko means 'a tie' and Desho means 'probably' or 'may be'. Thus Jung, Ken, Po, Aiko, Desho roughly means "'throw a hand and we'll see if its a tie". Sometimes you'll hear a short form of this as 'Gu, Pa, Choki' which are the sounds, in Japanese, that a Rock, Paper, Scissors make -- they sound like the right sounds to me.

## 6. Okay, tell me about the deep Mathematics stuff.

There are all kinds of games whose object is to get  $N$  things in a row on a  $M$  by  $M$  board. Take tic-tac-toe, for example. The object here is to get 3 X's or O's in a row on a 3 by 3 board. Simple and trivial. GoMoku Narabe is the same kind of a game where we try to get 5 stones of the same color in a row on an 18 by 18 board -- not so trivial or simple. Of course, there are an infinite number of such games -- 4 things in a row on a 10 by 10 board, 9 things in a row on a 20 by 20, board, etc.

For anything but tic-tac-toe, the mathematics are complicated and interesting. Read Scientific American's Sept. 1993 Mathematical Recreations section entitled 'A Shepherd Takes a Sheep Shot' for a good introduction.

According to this article, here is what we know about these kinds of games:

5 (GoMoku Narabe) and 6 in a row are complicated to play and are the most interesting.

5 (GoMoku Narabe) played on a 15 by 15 board can always be won.

Black can force a draw every time in 9 in-a-row and 8 in-a-row.

That's it. There's no sure strategy, no real proof that White has any advantage from the first move, or, in most cases, no known strategy for either side to force a draw. Mathematicians are working on these kinds of problems all the time and you can too. In the options menu you'll find an Alternate games capability. Here you can change the game to an alternate game of  $N$  in a row on an  $M$  by  $M$  board.

Experiment and try a few (even lowly tic-tac-toe is playable)!

Note: If you request a configuration that is fundamentally non-winnable (like 5 in a row on a 4 x 4 board) the program defaults to the smallest winnable configuration (for 5 in a row this would be 5 x 5).

## **5. How do you win the computer?**

There are three levels of play; Earth, Wind, and Fire. Earth is the easiest; Fire the hardest. However, the computer plays pretty well even on Earth and you shouldn't feel too bad if you get beat here. Just keep trying.

On Fire, the computer is tough to beat. Your strengths are strategy and cunning, the computer's are cold, calculating methodology and untiring attention to detail.

If you find that you can beat Fire readily, then you need to seek out a living, breathing person for your adversary -- and I hope I never meet you some day in a dark alleyway and you with some GO stones in your pocket.

## **7. The boss key.**

I am sensitive to the fact that you might want to play Gomoku Narabe in private at times.

To that end if you hit the space bar anytime during play ( whether playing on the board, doing a 'Jung', or choosing an alternate game) Gomoku Narabe will instantly minimize to an unassuming icon labeled 'Temp1.doc'.

This is also why Gomoku Narabe minimizes program manager on start-up -- so that after the boss key is used you won't see an embarrassing 'Games' program group, up top, in front, for all to see.



## **8. Resizing Gomoku Narabe.**

The playing board of Gomoku Narabe is resizable at any time. For instance, you can be playing at the normal start-up size, and suddenly decide to think small and resize the board to the size of a postage stamp (by dragging the borders). Of course, its hard to play GoMoku Narabe on a board the size of a postage stamp but . . .

## **9. How to contact the author.**

If you have comments or suggestions, you can contact me by:

E-Mail at CompuServe: 74212,1123

or by letter to:

P. S. Neeley  
248 W. 3325 N.  
North Ogden, Utah 84414

## **10. Credits (or where did all this stuff come from anyway?).**

Gomoku Narabe was written in Microsoft's Visual Basic for Windows 3.0.

The Kanjis for Earth, Wind, and Fire were downloaded from a BBS, converted to BMPs, and sized to fit. They were said to be scanned images of the calligraphy of a 16th century Samurai -- Myamoto Musashi. But I'll bet a bean-curd filled ice cream bar that they really meant Myamoto Musashi, the great 17th century samurai and the subject of all those great Toshio Mifune movies.

The picture of the young samurai on the 'Jung' form was cropped and resized from a picture downloaded from a BBS. The picture was titled ANGEL.BMP and depicted a modern-day, women samurai riding a motorcycle. Hmm . . . I wonder what Myamoto Musashi would have thought about that.

The board, stones, Hint check-mark, various icons, etc. were created using IconMaster -- an application furnished with Visual Basic. Most of the BMP images had to be re-touched using Microsoft's Paint program.

The fine graphics in the start-up 'Splash' form and the Alternate Games form are MetaFiles from Microsoft's PowerPoint.

This Help file was written with the aid of Craig Villalon's shareware help authoring system -- VB Automatic Help Author v.1.21 .

The knowledge of Japanese and GoMoku Narabe came from two years spent in Japan, speaking Japanese, and living with the Japanese people as a missionary for the Church of Jesus Christ of Latter-day Saints (the Mormons).

The knowledge and interest in Mathematics and programming is due to my father Pat's influence and the fine education I received from the many Math and Science teachers and professors who taught so very well (obligating a debt I can never repay).

The time to complete this programming project was donated by my wife, Barbara and my children, Jon, Melissa, Christie, Patrick, Nick, and James. If I'm real good, maybe they'll let me do another.



