

Grand Slam Tennis Computer Game (Version 2004.2)

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1. Introduction - what is the grand slam tennis program?

The Grand Slam Tennis Program allows you to see how recent grand slam tennis champions would fair against champions from the past. You can choose from more than 80 former men's grand slam champions and more than 50 former Women's Champions.

In addition, you can choose to play the tennis match at the Australian Open, U.S. Open, Wimbledon, or French Open. International tennis matches can also be played, with the option of choosing from many countries around the world. The program is perfect for simulating individual match ups or holding an entire tournament.

This is not video graphic game. It is a statistical game based on each former tennis player's historical success in playing major grand slam singles events. While some players have a higher probability of success, their performance in any particular tournament is still subject to the laws of random probability. For example, a player who has had major success in the French Open is likely to do well in the French Open, but could still lose to a player who has had less historical success in the French Open.

The statistics used in determining a player's ability is strictly limited to their performance in what is often considered the four tournaments comprising the tennis grand slam (Australian Open, U.S. Open, Wimbledon, or French Open). For a player to be included in this program, they must have won at least one of these major grand slam singles events going back to 1920.

2. What are the options available to play?

There are three selections you need to make before playing a tennis match. If you do not make these selections, the Windows version of the program will simply use the most recent players selected and have them play a match at Wimbledon.

First, you must choose where you want the match to occur. You may choose to play a match at the U.S. Open, French Open, Australian Open, or Wimbledon. Where you play the tournament is important, since each player is rated differently depending on the site of the match. Instead of choosing one of the four grand slam events, you can simply choose to play an international match. When choosing an international match you must choose not only which two countries will play against each other, but also what country will host the match. The international option is only available in the registered version.

Second, you should choose whether you want to play a men's or women's singles match. The program will not allow former women grand slam champions to play against former men champions. Since men and women tennis players do not compete against each other, it is not possible to accurately create a statistical model that would allow them to play against each other.

Third, unless you are playing an international match, you must choose the two opponents. The International module will randomly choose a player to represent the country you have selected. The DOS program will automatically take you to the appropriate selection screens. To select players in the Windows version of the program, make sure you have already indicated whether this is to be a male or female singles match. Then click the "Choose Players" button, this will give you a menu of former male or female grand slam champions. Choose a tennis player from the list and click the "Accept Player1" button, then choose an opponent and click the "Accept Player2" button. Once you have done this you will be back at the main menu, now you just need to click the "Start Match" button and enjoy the match!

3. How the program has evolved over time?

The original concept for this program came from a dice throwing game that used a chart that I created which ranked each player according to his or her success in grand slam competition. From this early concept I begin developing a program using the basic programming software that came with IBM PC computers. The first executable version did not happen until I converted my basic program into a Quick Basic program. Using Quick basic I was thus able to generate an executable form of the program to give to friends. The DOS version of this program continues to this day to be programmed using Quick Basic. Because of the size limitations of Quick Basic, the international match-ups had to be programmed as a separate module.

The tennis program is updated four times a year, at which time I recalculate the player's statistics based on the results of the latest grand slam tennis event (Wimbledon, French, Australian or U.S. open). In addition, I try to add enhancements or fixes to the program during each update. The program version number indicates when the program was last updated. For example, a version number 2000.2 means that this version of the program includes all information through the 2000 French open, since the French open is the second grand slam event of the year. The Australian open is the first event, with Wimbledon being the third event followed lastly by the U.S. open.

Finally, starting with version 2001.1 a Windows version of the program was available. The Windows version uses the same statistical model that I use in the DOS version, but hopefully the graphical user interface makes the program easier to use. The Windows version of the program is programmed using Visual Basic. At this time I plan to continue to enhance the Windows version of the program and only maintain updates to the statistics in the DOS version of the program.

The program is currently not available at any shareware sites, but perhaps that may someday change. Finally, I want to credit Bud Collins Tennis Encyclopedia for providing me with much of the information needed in generating a statistical model. The creation and evolution of my statistical model would have been very difficult without this great resource.

4. How are players chosen and skill determined?

All male and female tennis players who have won a grand slam singles event (U.S. Open, French Open, Australian Open, or Wimbledon) since 1920 will eventually be included in the program. At this time I am still gathering statistics and adding players. All of the players who have won a grand slam singles event in the past 40 years are already included in the program. When completed all grand slam singles champions from 1920 to the present day will be included in the program. During the World War II period between 1940 and 1945, the U.S. open was the only tournament which results counted in player's statistics. While the French open was held, the tournament was restricted to mostly German players, so the results were not included. The program only includes players who have won one at least one grand slam singles event.

A player's performance in this program is based entirely on their performance at grand slam tennis events. Therefore, a player's wins and losses at a non grand slam event does not effect on my statistical model. A player should perform better at the grand slam event that they have had the most success at. However, the more success a player has overall the better he or she will perform in general. This does mean that newer stars will have a slight disadvantage since they have had fewer years to accumulate grand slam success.

In creating an international tennis module I had to make two difficult decisions. First, players who played for different countries were usually assigned to the country they were from when they first won a grand slam singles event. Second, when you choose a host country, I tried to decide which playing surface (clay, grass, hard courts, or synthetic) that country is most likely to have in hosting the event. Once I made the surface determination, I used a player's rating on grand slam events held on similar surfaces in determining how well they would perform at this site.

Currently the program makes no adjustment for how many grand slam events a player has entered. While I am not sure how I would go about adjusting for this, I do believe that someday I may need to do some adjustments to the statistical model based on number of grand slam singles events entered. This would improve the bias against newer players and perhaps older players, where entry into all four grand slam events was not as common.

Finally, we know that in sporting events certain teams or players perform better or worse against certain opponents. However, this program is based on a statistical model that allows players from different generations to compete against each other and so I have not considered a players' success or lack of success against any individual they may have often played against. This seems to me also appropriate given that all players peak at different points in their careers.

5. What are my plans for improving the program?

Of course feedback from those of you who use this program is important here. If you feel I have left a player out or if it seems a certain player is not performing as you might expect, let me know. All suggestions, criticisms, or things as simple as spelling, grammar corrections would be appreciated. You can send me feedback via my email account: ttriplett13@comcast.net.

One thing I am considering is changing the statistical algorithm to reflect not only the amount of success a player has had in the grand slam events, but also their failures at these tournaments. This adjustment would help those players who did not have long careers.

One thing that is certain to continue happening is my debugging and checking the accuracy of the program. This of course is an area where feedback from those of you using this program would be a great help.

Eventually I will enhance the program to include player rankings, a tournament scoreboard, sound, and pictures. I also plan to improve and ease the procedures for getting the latest program updates. Finally, I want to improve the tennis log and statistics log. These are enhancements I will be working on, but again, I would be happy to entertain any suggestions. You can send me feedback on the program by going to the grand slam tennis program web site: <http://mywebpages.comcast.net/ttriplett13/tennis.htm>.