



Dominoes for Windows

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This is the classic game of single-spinner dominoes. It's you against one, two, or three computer players.

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Dominoes for Windows is shareware. If you continue using the program after initially evaluating it, you must [register](#).

As new versions of the game come out, they will be made available on the World Wide Web at the address <http://members.aol.com/FREEWHL44/> . Registered users can upgrade without losing their registration.



Dominoes for Windows

Introduction to Dominoes



Dominoes for Windows

Answers to Common Questions

Does the computer player cheat? He always seems to a) draw just the right domino, b) know what I have, c) beat the pants off me.

No, he doesn't cheat. When he draws his dominoes at the beginning of the game and when going to the bone yard, he selects them randomly. When deciding which domino to play, he makes the decision based only on the information that a real player would have. But since he's a computer, and the decision is based on considering many different possibilities, he can consider all of them quickly. That's exactly what computers do well. Actually, I had a few other ideas to make him smarter, such as making guesses at what you might be out of based on what you play, instead of only when you are forced to draw. But I never implemented these ideas because he already is such a tough player.

Sometimes it won't let me play a domino off the ends of a double. Why not?

In this version of the game, the only double that can be played from its ends is the very first double played in each hand. The reason for this rule is that it increases the strategic content of the game, as opposed to the luck factor. When someone plays the first double, he is staking out a controlling position in the game.

When I start the game, I see a message that the file CTL3DV2.DLL has not been installed correctly, but the game plays fine. What's it mean?

CTL3DV2.DLL is a utility that makes some of the windows have a nice 3D-look. To work correctly, that file must be in your `windows\system` directory, and **not** in the same directory as the games. The included program `install.exe` is supposed to take care of this for you, as well as installing icons to start the games in Windows. If you skipped this step, then you can manually take care of this file by opening File Manager (in Windows 3.1) or Windows Explorer (in Windows 95), and dragging the file out of the directory with the games, into your system directory. If the same or a newer version of that file is already in your system directory, then just delete the one in the directory with the games.

When I draw a domino, am I really selecting the one I'll get?

Yes, both at the beginning of each hand, and when drawing from the bone yard, you decide which one you get.

I thought Dominoes was a children's game, on par with tic-tac-toe.

You forgot to phrase your response in the form of a question. There are many different ways to play dominoes (see next question). Some games are very simple blocking games, where a player wins if he is the first to domino. Others keep score by counting only the points in your opponent's hand when you domino. These games are simple to play, but adults quickly get bored with them, like tic-tac-toe. On the other hand, domino games like the version played here are high in strategy, and tend to be played by people who are old enough to know what's good (in some people this might require very advanced age).

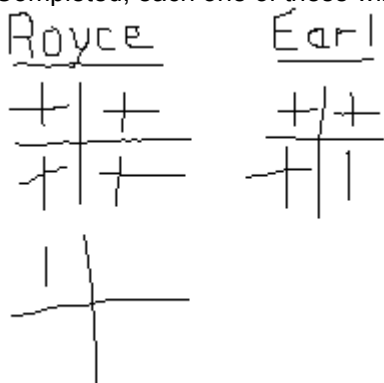
The version of dominoes I've always seen is different. Where did these rules come from?

They're the ones I've always played, and are described in the book *Domino Games* by Victor Lewis. But dominoes is a "folk" game, and there tend to be variations on the rules that vary with geography. I've tried to allow options to play as many variations as I can, such as the number of dominoes to start with, and who gets to play first. Some of the other variations are more significant and would be difficult for me to implement.

Now that I've become better at the computer game, I want to try to play against another person. Is there anything I should know?

Not much. Make sure you agree on the rules, such as who plays first. When you score, you need to ask to have your score recorded. You can't count on the scorekeeper noticing, and it's customary for him not to record it even if he does notice, if you don't ask for it. By the way, there is an easy way to keep score. Make one pencil mark for each five points, the first two marks in the shape of a large "plus" sign, the next two marks in the shape of a smaller plus sign in the upper left corner of the first one, then the next two marks in the upper right corner, etc., until you fill up all four corners.

Completed, each one of these will be 50 points. It looks like this:



In this example, Royce has 65 and Earl has 45.



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Revision History

v1.60 Made the game remember where the windows were placed last time, so that if you have a favorite way of arranging the score, hand, and table windows, you have to do it just once.

Fixed the other half of the bug that would sometimes cause it to mistakenly think the game was blocked after the first play.

v1.54 Fixed a bug that would sometimes, in certain situations, cause it to mistakenly think that the game was blocked, when someone could really play.

v1.53 Fixed the bug that would not count the doubles correctly if you were dragging one of the dominoes at the time it was looking to see if anyone had enough doubles to allow a re-shuffle.

Fixed a couple of other very minor bugs that most people would never see.

v1.52 Changed the way that the "Hand" window moves when it has to expand and shrink with the changing number of dominoes.

Fixed the way the layout of the Table would be optimized with a large Table or small domino size. Before, if the Table was bigger than about twenty dominoes wide by ten tall, the iterative routine to find the new spinner position would diverge. In practice, you would see a problem only if your display resolution is 1280x1024 or greater, which I think is still pretty rare for PC's. The problem was that the loop gain in the feedback was dependent on the area of the Table, and with a very large Table the gain would be large enough to move a pole to the right half of the s-plane. Made the gain independent of area, and did more analysis of the loop to choose a gain value that settles quickly.

Finally fixed the way the spots are drawn on the Table dominoes when they are at the largest size.

v1.51 Fixed the "Overall score" display, which would before show the human player's score for all players.

Added the choice to reshuffle if you have more than a certain number of doubles. Added the setting of this certain number on the Game Options window.

Fixed the display of previously opened files. Before, it would sometimes lose track of one of them.

v1.50 It now allows you to use the keyboard to play the game, as well as the mouse.

Fixed the bug that would cause the score box not to be updated properly, if File, New Game was selected with a different player or a different number of players.

v1.38 Fixed the very minor bug that would sometimes cause the spots in a domino (pips) to be drawn without the little reflection spot.

Allowed drawing the dominoes after a shuffle, immediately after the dominoes are drawn instead of waiting for a fraction.

v1.37 Fixed the bug that would prevent the "score" box from being displayed for first-time users.

v1.36 Added the menu option to view the overall score. Previously, the only time it could be seen was at the end of a game.

v1.35 Changed the game-saving method. Before, it would save the old game when you exited or

opened a new game. Now, it asks you if you want it saved. I did this because if you saved a hand that you wanted to play later, that hand would be overwritten with a later setup if you weren't very careful.

Improved the way the dominoes are laid out on the table when one of the arms bends at an edge.

In versions 1.1 through 1.3, the dominoes would not be drawn properly the first time the game was run. Successive times the game was started would be no problem. This was fixed in v1.35.

In versions 1.1 through 1.3, the computer opponents would be set to the easiest level (Selectric) by default, instead of the intended hardest (Deep Thought) skill level. This was fixed in v1.35.

v1.3 Added the history of open games.

Fixed the bug that would sometimes let someone play two dominoes in one turn. Fixed the bug that would not count a domino at the end of the hand, if that domino was picked up by the mouse when the hand ended.

v1.21 If the option was selected to allow the person who dominoed last to play first next game, there was a bug which would keep this from working right. It was fixed with this version.

If this option were selected and the previous hand was blocked (no one dominoed), previous versions would give the next down to the person with the fewest points in his hand, or in case of a tie, to the person who dominoed last. This version changed that to decide the down as if it were the first hand in a game, either by drawing for down or by highest double.

v1.2 In previous versions, if the shuffling process was interrupted to open a new game, then things could get confused. This was fixed in this version by waiting for all event handlers to finish before opening a new game or starting a new game.

Added was the ability to select how many dominoes each player starts with at the beginning of a hand.

v1.1 The ability to save the game setup and open it later was added. Also, when the game is exited the complete setup is automatically saved so that when the game is started again, you are right where you left off.

Added was the ability to let the person who dominoed, go first the next hand.

v1.0 This was the original released version.



Dominoes for Windows

Using the Keyboard Instead of the Mouse to Play

Starting with version 1.40, you can now use the keyboard to play the game instead of the mouse. Why? If you have one of those notebook PCs with a trackball or "pencil eraser" mouse, it might be easier. Or if you're one of those never-give-up DOS types who hasn't yet grown his third arm for the mouse. Here's how.

Drawing dominoes when shuffling

Hitting the Enter key or the space bar will randomly select one of the dominoes for you.

Drawing a domino from the Bone Yard

Hitting the "D" key will randomly select one of the dominoes in the Bone Yard. Of course, it only works when you don't have any in your hand that you can play.

Selecting a domino and playing it

You can use the cursor (up/down/left/right) keys to move the highlight (the border of the domino is drawn in a different color), and the Enter key or the space bar to play the highlighted one. Only dominoes that can be legally played will be highlighted (this is so that fewer keystrokes are required).

If a domino can be played in more than one place, and those places are not equivalent to each other, then it will not be played, but instead you will see each unique place to play it, flash briefly. Now you can use the cursor keys to select a direction, and that domino will be played on the arm that goes out from the spinner in that direction.

If there is only one domino that can be legally played, then you can hit Enter or the space bar without using the cursors at all.

If a domino can be played in more than one place, but those places are equivalent to each other, then it will automatically be played on the shorter arm.

You can also use the numeric keys to type the two numbers corresponding to the domino you want to play. This domino will then be highlighted, and pressing Enter or the space bar will play it. If there is more than one place to play it, then type first the number of the side that matches the end you want to play to. For example, if there is a three end and a four end on the table, and you have the 3-4, then by first typing 3, then 4, it will be played so that the 3's match up.



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How to Play Dominoes

In the game of Dominoes, each player takes turn placing domino tiles end-to-end. One end of the domino played must match the outside end of the last domino, so that the two matching ends are together. Doubles, however, are played sideways. The first double played is called the "spinner", and after both sides have been played to, its ends can be played as well.

Scoring

After each play, the outside ends of the last dominoes are added, and if the total is a multiple of five, then the person who played last scores that many points. If a double is the last tile in an arm, then it is played sideways and both of its ends count towards the total. If dominoes have been played off the spinner, then the last domino in each of those arms is scored too.

If a player can't play with a domino in his hand, he must draw a tile from the "Bone Yard", where the leftover dominoes are kept, until he draws one that he can play. A player is not allowed to draw unless he must to be able to play.

When a player plays his last domino, he gets to score the total of the spots in his opponent's hand(s), rounded to the nearest five. If all players still have dominoes and the Bone Yard has been emptied, and none can play, then the game is blocked. All players then count the total spots in their hands, and the person with the fewest gets to score the points in his opponent's hand, rounded to the nearest five.



Dominoes for Windows

Strategy

The strategy of dominoes can be broken down into three categories:

1. Scoring
2. Preventing your opponent from scoring
3. Blocking

These are listed in order of increasing difficulty, and therefore are characteristics of domino players of increasing ability.

Scoring

You can more quickly and easily figure if you will be able to score on a play by looking at the points on the board before you play, and figuring the difference between what's there and what it will need to score. For example, if there are currently 17 points, then you can make it a multiple of five and therefore score by taking away two, or by adding three. Then look for dominoes in your hand that can do this.

There are certain "magic" or "repeater" dominoes which you should try to hold on to because they make scoring easier. If your opponent has just scored, then you won't be able to score without one of these, and if you score, it then makes it more difficult for your opponent to score. These dominoes are the 0-0, 0-5, 5-5, and 6-1. If your opponent scores with a blank, five, or a non-double six or one on an end, then you would also be able to score with one of these.

Other magic dominoes can score when there is a double on an end. These are the 1-2, 2-4, and 3-6, which can duplicate the points in a 1-1, 2-2, and 3-3. Other magic dominoes are the 3-1, 4-3, and 6-2, which will score five fewer points after a 3-3, 4-4, and 6-6, respectively.

Preventing your opponent from scoring

After you get good at finding scoring tiles in your hand, you will be able to start looking for potential scoring plays that your opponent could make, and play ones from your hand that give him the least opportunity.

Blocking

The simplest form of blocking is achieved by noticing when your opponent is forced to draw from the Bone Yard, and making a mental note of which numbers he could have played to. Then, try to make those numbers his only options again.

You can also consider that if you have several of one number, or if several have already been played, your opponent is more likely to be out of them.

Another strategy related to blocking, is to use your low dominoes to try to force the low dominoes out of your opponent's hand, then when you go out, he will have more points left in his hand. Try to remember to use your larger dominoes for scoring, and your smaller ones for blocking.

Menus and Controls

To learn more about a command in one of the following menus, click its name.

File New game, Save game, Save current game as, Open saved game, View statistics, Exit, Open file history.

Options Game options, Players, Colors, Enable sounds, Enable status bar, Optimize table layout, Hand domino size, Table domino size.

Help Register, Contents, About.



Dominoes for Windows

File menu

New game Starts a new game, erasing any score so far in this game.

Save game... Saves the game to the file name that was opened last.

Save current game as... Lets you save the current game, including the distribution of all the dominoes and everyone's score, to a file that you name. By default, the files will have the extension *.dom*. Also, the saved file is in simple text format, so it can be easily e-mailed. Any time you exit Dominoes, it will ask if you want the game to be saved to the currently opened game file. Then next time you start, that file will be automatically loaded, so you will be in the exact situation where you left off.

Open saved game... Lets you open a game file that you previously saved. Only registered users can open saved games.

View statistics... Dominoes for Windows keeps track of how many times you and your computer opponents win, and the scores. It can report to you whether you are winning your share of games, where 100% is considered your share. For example, in a two-player game, a score of 100% means that you have won half of the time. It also tells you how many points you score relative to your opponents. Both of these statistics are kept separately depending on the skill level you have selected for your opponent.

Exit Closes Dominoes for Windows, and the help file if it is open.

Open file history If you save a game, you can quickly get back to any one of the last four open games by clicking its name here. Since this is really the same as opening a saved file, it is only available for registered users. This feature can be used if there are two or more people who might play the game at different times, because it lets a person switch back to his game easily.



Dominoes for Windows

Options menu

Game options... Here you can choose how many players there are in a game, and if there are four, you can either be all playing individually or as partners.

You also have a choice of who gets to start playing the first hand of each game. In the default way, you will each draw a domino and the person drawing the most spots will get to play first. The other way is for the person who holds the highest double will always start with that one. After the first hand, you can either alternate who gets to go first, or select to let the person who dominoed last go first. If you choose the dominoed-last option and the previous hand was blocked (no one dominoed), then the down will be decided as if were the first hand of the game, either by drawing for down or by highest double.

You can change the number of tiles that each player draws at the beginning of each hand. Valid choices are between 5 and 11, but not more than 28 dominoes divided by the number of players.

Also, you can define how many points there are in a game.

Players... You can name your computer opponents, and choose how skilled each is.

Colors... You can make the dominoes and the table surface any color scheme you want. If you are not registered, then the colors will not be saved for the next time.

Enable sounds If this is checked, then clicking, sliding, and shuffling sounds will be made. This feature requires a Windows sound driver, and that the files *click1.wav*, *click2.wav*, *click4.wav*, and *shuffle.wav* be present in the same directory as the program.

Enable status bar If this is checked, a small strip will be placed across the bottom of the main window, prompting you with instructions. After you learn how the program works, you may want to turn this off, and use the extra space to make the table bigger.

Optimize table layout When one of the arms of the dominoes reaches an edge of the table, the next domino will be bent around so that it will fit. Sometimes, this can result in one of the arms being curled up in one corner of the table, with the rest of the table area hardly used. If you would like them rearranged, click this item and the layout will be optimized so that each of the four arms has room to grow.

Hand domino size The dominoes that are displayed in your hand can be made to be larger or smaller independent of the size of the dominoes displayed on the table.

Table domino size Larger dominoes are easier to see, but they can get crowded on a small table. Pick a size that is easy for you to see, but not bigger than they need to be. With smaller dominoes, the layout of the table will be more orderly. If you ask for a domino size that would be too big to fit them on the table well, you will be told that you need to resize the table by dragging its border with the mouse, then try again.



Dominoes for Windows

Help menu

Register Dominoes for Windows is shareware. This means that you can obtain the program for free, and give it to your friends. If you continue to use it after seeing what it can do, you are then expected to pay for it. To find out exactly how this is done, read the [Register](#) help page.

Contents Select this to bring up the Contents page of the help file, *dominoes.hlp* (you're reading that file now). You can also bring up the help file at any time while using Dominoes by clicking the F1 key. Also, the F1 key is context-sensitive, meaning that it will open to the help page appropriate to what you are doing at the time.

About... Displays a window with info about Dominoes for Windows.



Dominoes for Windows

Registering

Dominoes for Windows is shareware. You can try it out for an evaluation period without it costing you anything. If you continue to use the program, the license agreement between you and me says that you must then register by sending \$15 U.S. to this address:

Curtis Cameron
1520 Glastonbury Dr.
Plano, Texas 75075

Also include your return e-mail address or postal address.

Dominoes for Windows and Win42 can be registered together for \$25 instead of \$15 each.

In addition to meeting the license terms, you will receive a "code word" which will make the program load much faster, and enable some of the features which have been disabled.

This code word is specific to you - it is dependent on the spelling of your name, and when registered your name will appear on the opening title for Dominoes. See [Giving the program to your friends](#) for information on which files to copy so that your name won't be on every copy that gets made after that.

When you receive your code word, go to the Register window by clicking Help, then click Register. Enter your name, with the same spelling that is tied to your code word. Capitalization or punctuation don't matter. Then enter your code word and click the Register button. From this point forward, the program will load much faster and all the features of the game will be enabled.



Dominoes for Windows

Copying the program for your friends

Please give the game to as many people as you think might like it. The simplest way is to tell your friend to get it from the web page at the address <http://members.aol.com/FREEWHL44/>. Doing it this way will require some familiarity with the computer's file system and how to unzip files. For the novice, both Dominoes for Windows and Win42 have a feature which allows you to make a fresh install disc by selecting *Copy the program for a friend...* in the *File* menu. This will copy all the files you need, assuming that you haven't deleted any since you installed them on your machine.

In the program's directory:

The following files should be together in their own directory. When copied to the friend's computer, they all should all be placed in a directory that is created just for Dominoes and Win42.

dominoes.exe The program itself.

dominoes.hlp The help file (you're reading it now).

threed.vbx This is a library file that must be present for Dominoes to run. Some computers already have a threed.vbx file in their windows system directory, but it's a good idea to keep this one in the same directory as the program, since there are some minor compatibility problems between different versions.

***.wav** All file names with the .wav extension are the various clicks and sound effects.

In the windows system directory

These two files can be found in the windows system directory, usually at the location `\windows\system`. Copy them to the windows system directory on the destination computer too.

vbrun300.dll This file must be present for Dominoes to run, but since many other programs also require the same file, keeping it in the system directory lets them all share the same copy, and uses less room on your disk drive.

ctl3dv2.dll This is another shared library file. To work properly, it must be in the windows system directory.



Dominoes for Windows

Skill levels

You can choose how much skill your computer opponents have. There are four levels, and each is explained below.

- Selectric** This is the easiest level. A player with this skill level will only try to match the ends and get rid of his dominoes, but pays no attention to scoring. It has all the brains of the classic typewriter.
- ENIAC** A player with this skill level will try to get rid of his dominoes and score as many points as possible. He is not able, however, to consider how many points someone else might score as a result of his play. The name is that of the first electronic computer, the Electronic Numerical Integrator and Calculator.
- HAL 9000** HAL can do everything ENIAC does, plus consider the points that someone else might score, and the probability of doing so. The HAL 9000 was the name of the computer that achieved self-awareness in Arthur C. Clarke's classic story, *2001: A Space Odyssey*. By the way, Mr. Clarke emphatically denies the rumor that the letters H-A-L were chosen because they alphabetically precede I-B-M.
- Deep Thought** This level player can do what HAL can do, plus he will notice whether his opponents are out of a particular suit, or likely to be so, and attempt to block them from playing. This is the most difficult level - Curtis Cameron himself can beat this level only about a third of the time. Deep Thought was the name of the computer built by a race of philosophers, to calculate the answer to the ultimate question of life, the universe, and everything, in Douglas Adams's book *The Hitchiker's Guide to the Galaxy*. The answer, revealed after 75000 generations of computing, was forty-two. The problem is that you don't really understand the question.

