Curling for Windows

The Other Game of Curling

The following is a brief introduction to the game of Curling.   It is by no means a complete description of the game, but should give enough background information for a novice to be able to use "Curling for Windows".

The Players

Curling is a game for two teams of four players each.   The four players on each team are known as the Lead, the Second, the Vice, and the Skip.

Related Topics:

Order of Play

The Play Area

The play area is a sheet of ice 14 feet wide by 138 feet long, optionally surrounded by boards.   The most notable features of the play area are the concentric circles, or rings, marked on both ends of the ice.   Several lines are also marked on the play area.   The Advice index titled "Play Area" will help you to identify the various features of the ice.

Related Topics:

Options: <u>Play Area</u>

The Equipment

The main equipment used in the game is two sets of rocks, one for each team.   The two sets are of different colours.   Each set consists of eight rocks, two for each player on the team.   Each rock is circular, a little under one foot across, and flattened on the top and bottom.   They are carved out of granite, and weigh about 40 pounds.   A handle is attached to the top of each rock.

Other equipment used in curling are a broom for each player, optional special gloves and shoes, and a scoreboard.   There are two types of scoreboards, the North American and the International.   The international scoreboard is also known as the European, or baseball-style scoreboard.   This is the type used in "Curling for Windows".   Each end, a score is calculated for each team, and placed on the scoreboard under the end number.   A total for each team is kept at the far right of the scoreboard.

Before the Game

Before beginning play, the number of ends to be played must be decided.   An "end" consists of all 16 rocks being thrown from one end of the ice to the other, as explained below.   A game usually consists of an even number of ends, typically 6, 8, or 10, depending on the time available and the level of competition.   The order of play is decided by a coin toss.   The team that loses the coin toss throws first, since there is a strategic advantage to the team that throws last.

Related Topics:

How to . . .   <u>Start a New Game</u>

Order of Play

The end proceeds with the two teams alternating shots.   First the Leads alternate throwing their two rocks, followed by the Seconds with their two rocks, followed by the Vices, and finally the Skips.

Related Topics:

How to . . .   <u>Enter the Shot</u>

The Skip Determines the Shot

Strategy is determined primarily by the Skip, who stands at the far end of the ice.   He looks at the placement of the previously thrown rocks, judges the possibilities, and indicates to his teammate throwing the rock what type of shot to make.   First, he gestures with his broom, pointing to where the rock should stop, or any other rocks he would like hit, and what should happen to them.   Then he places his broom on the ice, giving the player a target to aim at.   This is a tricky judgement to make, since a rock will not go straight, but will "curl" to the left or right, by as much as several feet.

Related Topics:

How to . . .   <u>Enter the Shot</u>

The "Curl"

The curl is determined by the spin put on the rock as the throwing player releases it.   A clockwise spin will curl to the Skip's left, and counter-clockwise will curl to the Skip's right.   The usual terms are "in turn" and "out turn", but I will avoid these terms, as they mean different things for left handed versus right handed players.

So, the Skip estimates the distance the rock will curl, and places his broom on the ice appropriately.   He indicates the direction of the curl by raising a hand.   If the rock is to curl to his left, he raises his right hand.   If it is to curl to his right, he raises his left hand. This may seem complicated, but it quickly becomes second nature to a curler.

Related Topics:

How to . . .   <u>Enter the Curl</u>

The "Weight"

The final aspect of the throw, or delivery, is the weight.   This refers to the speed of the rock.   A fast rock is said to have heavy weight, while a slow rock is said to be light.   Each player is responsible for learning the weight as the game proceeds, and judges the weight for a given shot according to what the Skip has indicated the rock is to do.   The condition of the ice will affect the weight.   Ice which requires heavy shots is said to be slow, while ice which requires light shots is said to be fast.   To complicate things, ice tends to "speed up" as a game proceeds, requiring lighter shots.   This process is often uneven, speeding up more down the centre of the ice where more shots are played, and remaining slow at the sides.

The weight also affects the amount of curl.   A heavier shot will curl less than a lighter shot, and fast ice curls less than slow ice.

Related Topics:

How to . . .   <u>Enter the Weight</u>

Summary of the Shot

To summarize, the three aspects to the delivery of the shot are the aim, indicated by the Skip's broom on the ice, the direction of the curl, indicated by the Skip's raised hand, and the weight, judged by the player throwing the rock.

When it is the Skip's turn to throw, the Vice holds the broom for him to aim at.

Sweeping

Once the rock is released, no one may touch it until the end is over.   However, its direction and speed can be controlled to some extent with sweeping.   Using your broom to sweep in front of a moving rock changes the condition of the ice, warming it, and making it faster.   This causes the rock to slide further, and curl less.

Any team member may sweep any of his own team's rocks, no matter where it is on the ice surface.   However, only one member of each team may sweep an opponent's rock once it has crossed over the tee line, and no one may sweep an opponent's rock before it has crossed the tee line.

Related Topics:

How to . . .   <u>Sweep</u>

Scoring the End

When both teams have delivered all eight of their rocks, the end is over, and the score for the end is calculated.   If there are no rocks within or touching the rings the end is "blank", that is, there is no score, and the order of play remains the same for the next end.   Otherwise, the team with the rock closest to the centre of the rings wins the end. To calculate the score, count the number of the winning team's rocks which are closer to the centre than the closest of the opposing team's rocks.   A rock must be within or touching the rings to count.   The team which wins the end will throw the first rock of the next end, giving the advantage of last rock to the other team.

Related Topics:

How to . . .   <u>Enter the Score</u>

Winning the Game

After all the ends are completed, the team with the highest total score for all ends is the winner.   If the score is tied, extra ends can be played until a winner is determined.

The Free Guard Zone Rule

Many people play the game of Curling under what is known as the "Free Guard Zone Rule".   This rule states the following:

1.   The area between the Hog Line and the Tee Line, excluding the house, shall be the Free Guard Zone.

2.   No stone lying within this zone may be removed from play by the opposition until the first four stones played in any end have come to rest.   Any shot played in those circumstances which results in an opposition stone being moved from the Free Guard Zone , either directly or indirectly, to an out of play position is an infraction which shall result in the played stone being replaced where it previously lay.   All stones shall be replaced to the satisfaction of the non-offending team.

To simplify this, if a lead causes one of the other team's rocks to roll out of play from the free guard zone, all rocks are replaced to their original positions, and the thrown stone is removed from play.

Use of this rule is optional.   For people who curl at a very high level, it provides for a more interesting game by ensuring that more rocks remain in play.

Related Topics:

How to . . .   Use the Free Guard Zone Rule

How to Play Curling for Windows

Novices to the game of curling should read the section titled "The Other Game of Curling" before reading this section.

Introduction

"Curling for Windows" is a game for two players (or one can play against himself).   This current version does not have an option to play against the computer.

Starting a New Game

From the pulldown menu titled "Game", select the option "New Game".   A pop-up window will allow you to enter team names, the number of ends to be played, and allows you to choose heads or tails, simulating a coin toss to decide who throws first. The player who loses the toss throws first.

The speed of the ice is randomly set, and a broom is displayed on the ice.

Related Topics:

The Other Game: <u>Before the Game</u>

Entering the Shot

A coloured circle will appear to the left of the scoreboard, as a reminder of which team is currently throwing.   Inside the circle is either an "L", a "2", a "V", or an "S", indicating that the lead, second, vice, or skip is throwing.   This is followed by either a "1" or a "2", indicating whether it is that player's first or second shot.

Move the broom with the mouse or cursor keys to the point on the play surface you want the rock aimed at, and click the left mouse button or hit Enter.   A pop-up window will appear.   In case you have lost track, displayed at the top of the window is the team, player, and rock (first or second) that is currently being thrown.

Related Topics:

The Other Game: <u>Order of Play</u>
The Other Game: <u>The Skip Determines the Shot</u>

Curl

To enter the curl, click the left mouse button over the appropriate option.   The curl is specified as either left or right, from the Skip's perspective.   Hands are displayed, in the positions a skip would use to indicate the curl.

Related Topics:

The Other Game: The "Curl"

Weight

To enter the weight, there is a scroll bar.   The further to the right, the heavier the shot. There are 40 positions on the scroll bar, draw weight in the early game will typically be in the range 30 to 35.

Moving the weight indicator to get a precise weight can be tricky.   It is easier to click on the scroll bar, or the arrows at either end of it, to get a very precise value for the weight. Click on the bar itself to move the indicator plus or minus 5.   Click on the arrows at the ends of the bar to move the indicator plus or minus 1.

For example, to set the weight to position 33, move the indicator to the far right (40), click on the bar once (-5), and click on the left arrow twice (-2).   A weight of 33 will almost certainly end up somewhere in play in the first end.

Related Topics:

The Other Game: The "Weight"

Return to the Broom, or Throw

To reposition the broom, click on the button marked "Broom".   The pop-up window will disappear, and the mouse will again move the broom, allowing you to change your shot. Click the mouse again to return to the pop-up window.

Once you are satisfied that the shot has been specified properly, click the button marked "Throw".

If You don't Have a Mouse

If you don't have a mouse, use the Up arrow key to move the focus to the weight scroll bar.   Use the Left and Right arrow keys at this point to set the weight.   Then use the tab key to return to the curl selection buttons.   Select the appropriate direction for the curl using the Left and Right arrow keys, or hit I or O for In turn or Out turn.   When done, hit B (or ESC) to return to the broom, or T (or Enter) to throw the rock.

Please note that without a mouse, the focus can only be moved to the weight bar by using the Up arrow from the "Out turn" button.

Related Topics:

How to . . .   <u>Enter the Shot</u>
How to . . .   <u>Enter the Weight</u>

Sweeping in Curling for Windows

It is possible to play "Curling for Windows" without sweeping.   After all, your teammates never miss the broom or misjudge the weight, so there should be no need for sweeping. However, use of sweeping adds an extra challenge to the game, and additional opportunites. If your rock is going to wreck on a guard, a little sweeping may just allow it to squeeze by.   If you're trying to remove a rock, sweeping it may just ensure that it is removed from play.
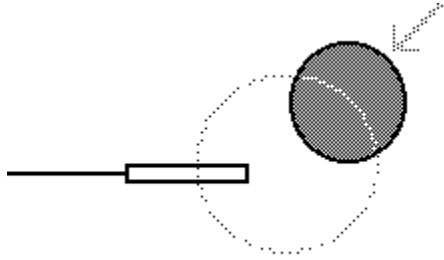
Sweeping in "Curling for Windows" requires you to move the broom, keeping it just in front of the rock as it moves.   The broom may touch the rock.   If the broom is somewhere between the centre of the rock and about one rock's width in front of the moving rock, you are sweeping!

The diagram above shows the sweeping region.

Related Topics:

The Other Game: Sweeping

The Shot

The rock will appear at the far right of the screen.   If it should fail to cross the hog line, or crosses the back line, or hits the boards, it will be removed from the play surface, and reappear at the far left, out of play, when the shot is over.   The same applies to any rock that is hit, and then crosses these boundaries.

Scoring

When the end is over, the score is calculated automatically, and the scoreboard is updated.   A message window indicates who won the end, and who will throw first in the next end.   Click the "OK" button to continue with the next end.

When the game is over, a message window indicates the winner.

Related Topics:

The Other Game:	Scoring the End
The Other Game:	Winning the Game

The Ice Surface

At the start of a new game, the ice is fairly slow, requiring a heavy weight for even a long guard.   With each shot, the ice will speed up slightly, and you will notice that the same weight will take each rock slightly farther than the previous one.   This effect is especially noticable over several ends.   The centre ice will speed up the most, slowing down toward the sides, where there is no effect at all.

Related Topics:

The Other Game: The "Weight"

Using The Free Guard Zone Rule

There are two ways to play the Free Guard Zone Rule under Curling for Windows:

1.   When the rule comes into effect, use the "Undo Shot" option to replace all rocks to their original positions.   The Free Guard Zone Rule requires you to remove the thrown rock from play.   This can be accomplished by either hogging the rock, or throwing it into the boards.

2.   Use the "Manual" option to move all rocks to their original positions.   This is not as accurate as the above method, but is truer to what actually happens in a real game.

Use of this rule is optional.   For people who curl at a very high level, it provides for a more interesting game by ensuring that more rocks remain in play.

Related Topics:

The Other Game: The Free Guard Zone Rule
Options   :   Undo Shot
Options   :   Manual Setting

Options

The following options are available from the pulldown menus.

Speed

Depending on several factors, "Curling for Windows" may appear too fast or too slow to be realistic.   Or, you may not care about realism, and may just want the game to proceed more quickly.   For these reasons, the game has a speed control.

Actually, there are two speed controls, one called "Step Size", and one called "Display Rate".   These two controls have slightly different effects on the game, although they have the same ultimate purpose.   The "Step Size" of a rock is the distance a rock will travel before "Curling for Windows" recalculates the rock's position.   The larger the step size, the faster the rock will travel.   The smallest step size available is 1/16 foot, and the largest is 1/2 foot.   The default is 1/4 foot.   A smaller step size is recommended for a more realistic game.

The "Display Rate" is the number of steps that "Curling for Windows" will calculate before a rock is repositioned on the screen.   A display rate of 1 will redisplay the rock every step.   A display rate of 16 is the fastest rate available, and will redisplay the rock every 16 steps.   Since updating the screen is a very slow process in Windows, A large display rate will speed the game significantly, but will make the rock move in a very choppy manner.   Collisions between rocks are always displayed.

Colour Settings

The default colours for the rocks and rings are red and blue.   To change the defaults, select the "Colours" option.   Eight colour options will be displayed for each team. Colours can be selected with the mouse or the keyboard.   For eight additional colour choices, click the right mouse button.

Manual Setting

For various reasons, you may want to reposition the rocks, or manually set the scoreboard.   You may want to pick up an old game where you left off, or show someone a situation from a previous game.   You may want to discuss strategy, or set up a trick shot, or practice a shot.   Whatever your reason, the "Manual" setting is available.

With the manual setting on, any rock can be moved by setting the end of the broom over it, and either clicking the left mouse button or hitting the Enter key.   As long as the button is held down, the rock will move with the broom.   Releasing the left button or hitting Enter again sets the rock in place.   Even the next rock to be thrown can be moved.   It can be found at the far right of the ice.

The scoreboard can also be edited.   To erase the scoreboard, hit the space bar.   To erase the previous end only, hit the backspace key.   To set the score for team 1 to any number from 1 to 8, hit the appropriate number key from 1 to 8.   Team 2's score will automatically be set to zero.   To set the score for team 2, hit the zero key (team 1's score), followed by the appropriate number key from 1 to 8.   To blank the end, hit zero twice.

To replace rocks where they were, select "Undo Rocks".   To set the scoreboard back to its original values, select "Undo Score".   To continue with the game, select "Manual" again.   Once you choose manual again, you can no longer undo either the rocks or the score.

Undo Shot

You may occasionally find that you want to retry a shot.   This can be extremely helpful during practice situations, allowing you to see the effect of changes in strategy, or minor shifts in the position of the broom.   By selecting the "Undo Shot" option from the Options menu, all rocks are replaced to their position prior to the last rock being thrown. If it is selected before any rock is thrown in an end, you are returned to the last rock of the previous end.

By selecting "Undo Shot" a second time, the rocks will be replaced where they were before "Undo Shot" was selected in the first place.

It is a good idea in an actual game situation to decide before the game begins under what conditions use of this feature will be allowed.   For example, it is easy for novices to "Curling for Windows" to put the wrong curl on the rock, so you may want to allow such shots to be undone.   However, once the players are experienced, they should not be making such mistakes any more, and they should have to live with the consequences.

Save / Load Game

This feature is available from the "Game" menu.   A game can be saved at any point, to be continued at a later date.   Another use for this feature is to save a game at a crucial point, then play the game from that point using different strategies.

Trails / Erase Trails

This feature, available from the "Options" menu, causes each rock to leave a trail behind it as it moves.   This can be very useful in analysing the results of a thrown rock. When Trails is selected, a check mark is placed beside it in the Options menu.   To get out of the trails feature, select it again.   This causes the check mark to be removed.

To keep the trails feature, but remove all trails currently displayed, select "Erase Trails" from the Options menu.

Play Area

This feature is one of the "Advice" options.   When "Play Area" is selected, a list of terms is presented.   Each term identifies an area on the play surface.   By selecting one of the terms, the corresponding area on the play surface is identified.

Related Topics:

The Other Game: The Play Area

Types of Shots

This is another of the "Advice" options.   When "Types of Shots" is selected, a list of terms is presented.   Each term identifies an expression used to describe a shot in Curling.   By selecting one of the terms, a sample shot is displayed.

Related Topics:

Strategy: Types of Shots

Analysis of Rock Collisions

If you dislike mathematics and physics, then DO NOT READ THIS SECTION!   If, however, you have some knowledge of geometry, and   would like to better understand exactly what is happening when rocks collide, then read on.

The Analysis feature on the Options menu will capture information about each collision between two rocks, and copy it to the Clipboard.   To view the data, you must then open a word processor, text editor, or spreadsheet program, such as Windows' Write or Notepad.   Select the Edit menu, then select the Paste option.   The collision data will then be transferred to the program, in numerical form.

The data is arranged so that each collision is represented by four lines of numbers. The first two lines show the positions and velocities of the two rocks before the collision, the second two lines show the same values after the collision.

Each line has five values.   The first value indicates the number of the rock represented on that line.   Rocks are numbered from 0 to 15, corresponding to the order in which they are thrown.   The next two numbers are labeled "x =" and "y =", and represent the position of the rock in the horizontal and vertical directions, measured in feet from the top left of the ice.   For example, "x=12 y=7" would be a rock right on the button.   The final two numbers are labeled "+x =" and "+y =", and represent the rock's direction and speed in the horizontal and vertical directions, expressed in feet per second.

Some relationships to note: The total velocity in both the x and y directions is the same before and after collision.   The dot product of the velocity vectors is the same before and after collision.

Related Topics:

The Physics of the Shot

The Physics of the Shot

When rock "A" hits rock "B", it is not entirely obvious what will happen to them.   Both will continue to move, but in what direction, and at what speed?

A straight line from the centre of "A" to the centre of "B" at the time the rocks collide will give the direction of "B".   The direction of "A" is always at an exact right angle (90 degrees) to the direction of "B".

Now that we know the directions, we can determine the speeds.   Obviously, if "A" hits "B" dead centre, "A" will come to a complete stop while "B" will begin to move with "A"'s original speed.   Likewise, if "A" just barely touches the side of "B", "B" will not move at all, while "A" will continue at its original speed.   In between these two extremes are all possible combinations.

If you are mathematically inclined and understand vectors, then the sum of the velocity vectors of "A" and "B" after the collision is equal to the velocity vector of "A" before the collision.   Things are slightly more complicated if both rocks are moving, but "Curling for Windows" will handle this situation appropriately if it should ever happen.

Related Topics:

Options: <u>Analysis of Rock Collisions</u>

Curling Strategy

Curling strategy is a complex topic.   In this discussion, I am going to restrict myself to a few pointers to assist the novice.   For a more in-depth analysis, your local public library should have several excellent references.

Last Rock

The team which throws the last rock in any end has a distinct advantage in that end. Much of the strategy of curling is concerned with who has the last rock.   The advantage of last rock is, of course, that if the Skip with last rock knows the curl and weight of the ice, he can throw the last rock closer to the button than any rock currently on the ice, and score at least one point.   Your strategy should therefore be to hold your opponent to a single point if they have last rock, and to attempt to score two or more points in any end in which you have last rock.   You might even consider blanking an end, rather than taking a single point and giving the advantage of last rock to your opponent in the next end.   If you score any points in an end in which you do not have last rock, this is known as a "steal".

Last Rock in the Last End

It is an advantage to have last rock in any end, but it is especially important to have last rock in the last end.   If you are behind, this is your last chance to catch up, and if you are ahead, your opponent would have to steal to tie the game.   In the later ends, therefore, you should consider manipulating the order of play to gain last rock advantage in the final end.   For example, if you have last rock in the second-last end, you might want to blank the end to keep that advantage in the last end.

If Your Opponent Has Last Rock

If your opponent has last rock, try to throw a lot of guards out in front of the rings early in the end.   These will make it more difficult for the other team to get the last rock into the house.   Once you have a guard in place, try to get a rock into the rings, hidden behind the guard and off to the side.

If You Have Last Rock

If you have last rock, it is likely your opponent will be using the strategy above.   Try to prevent him from cluttering up the area with any guards, by taking them out.   Try not to leave your own rocks in play, they should roll out of play as well.

After Your Shot

Try to keep in mind what the ice will look like after your shot is completed.   For example, two rocks left close together could be set up for an easy double takeout.   It is much better to have those rocks end up on opposite sides of the rings.   Also, a rock at the back of the rings is in a dangerous position.   A well placed draw shot could freeze to it (draw up just touching it),   and be closer to the button, and also very difficult to remove.

Watch Your Opponent

Watch where your opponent places the broom, and what weight is used.   It often happens that the shot you will have to make is very similar, if not identical, to the shot your opponent just made.   If he is squeezing past a guard, can you place the broom to get just a little closer?

Different Types of Shots

Look at the sample shots in the Advice area "Types of Shots" for ideas of what you might try.   There are lots of ideas here, such as raises, freezes, takeout and stay, takeout and roll, and more.

Related Topics:

Options: <u>Types of Shots</u>

Curling for Windows - Important Information

Product Description
Disclaimer
Virus Protection
Redistribution
Becoming a Registered User

Product Description

Curling for Windows allows two players to play a game of Curling.   It is also intended as an educational aid to the novice, introducing the terms and strategy of the game.

Virus Protection

In order to ensure that this program reaches you virus-free, it includes Virus Protection. Each time this program is run, a series of tests will be run on it.   Almost all viruses will fail at least one of the tests.   If any of the tests fail, a warning message will appear, and the program will fail to run.   If this should happen, you would be well advised to purchase an antivirus software package, and use it to test your entire system.

It is worth repeating that the software will test itself, and only itself, for changes which may be due to a virus.   The author accepts no responsibility for damage caused by a virus which is capable of circumventing the tests.

Disclaimer

Users of Curling for Windows (hereinafter known as the software) must accept this disclaimer of warranty:

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The following files must be included in the package for distribution:

CURLING.EXE
CURLING.HLP
CURLING1.DLL
CURLING2.DLL

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If you have any questions, problems, comments or suggestions, please send them to the address above.   We would also appreciate receiving a copy of any reviews, articles, or other information you distribute regarding the software.

**Thank you for trying "Curling for Windows"!**

This program is shareware, so please remember to register your copy. If you like this program, please help me to make it available to others, by printing the <u>flyer</u>* and posting it at your local curling or computer club.

Also, be sure to check out the "Options" and "Advice" menus. There's lots of good stuff here, and some surprises, too!

David McIntosh

*Click on the word "flyer" above. Then select "File", then "Print Topic".

Curling for Windows
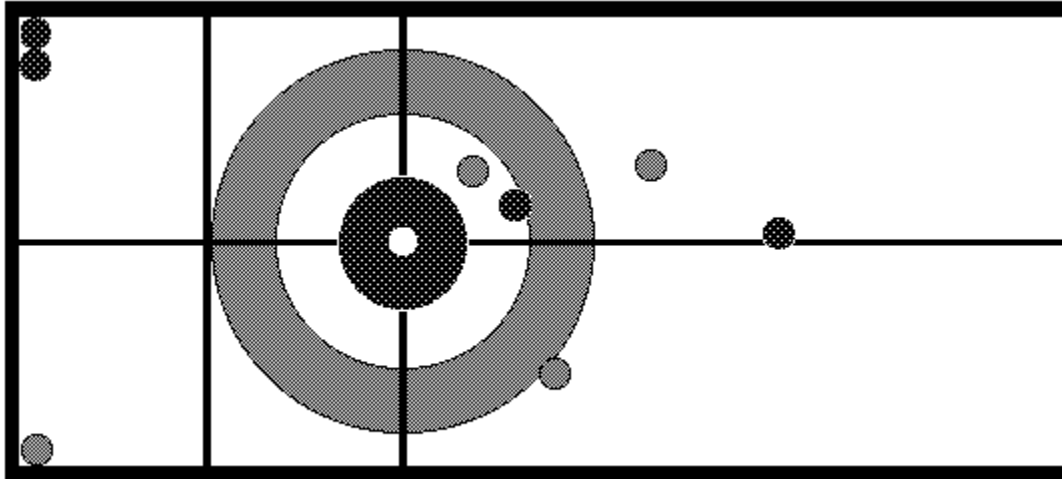
"Curling for Windows" allows two players to play a game of Curling on any IBM compatible personal computer.   It is also intended as an educational aid to the novice, introducing the terms and strategy of the game, or as a strategy board for the expert!

"Curling for Windows" requires an IBM compatible computer, running Microsoft Windows version 3.0 or higher.

For your copy of "Curling for Windows", send $25 Canadian, or $20 U.S. to:

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