VoRTeX

VoRTeX is a brand new board game of strategy and chance in which the several game pieces are raced through a spiral path to a common finish.   The distance of the moves is decided by the throw of a computer die.   The choice of which piece to move is determined by the players so that their pieces advance more rapidly than the pieces of their rivals.

You are likely to score more points in victory,   if you choose more game pieces,   play against more players and/or play on large board sizes.

Help topics

Rules of the Game

Who can play?   This game can be played both by adults and children ages three and above.   There are in-built features that allow even three year olds who are yet to learn how to count but can use a mouse or use a keyboard to play and enjoy the game.   In the beginning,   children find the keyboard easier to use to select a game piece than positioning a mouse over it.

How many players do you need?   This game can be played by 1,2,3 or 4 players.   You can enjoy the game by playing either the computer or other players.   For maximum enjoyment 1 or 2 players can match wits against the computer.   One player can use the mouse and the second player can use the keyboard. We have noticed that children find it easier to use the keyboard to select a game piece than to select it with a mouse.

Under   Options... in main menu,   choose no. of human players as 1, 2, 3 or 4 and total no. of players as as 2, 3, or 4.   For example,   if you and a friend want to play at the same time,   select 2 as the number of human players.   If you want the computer to be third player,   select 3, as the total number of players.   Then the computer will play one position.

How long does it take to play a game?   A game can be played in less than a minute or take over an hour.   It depends on the no. of players,   how big a board you choose ,   how many game pieces that you use and how long you think before you make a move!

How do I start playing?   Click on the green button marked Start.
If you would like to see a demo click on the Demo! item in the menu bar.

Who gets to start first?   Chosen randomly by the computer.   The score of the starting player is marked with an asterisk (*) in the score   box at the bottom right side of the screen. Every player gets an equal number of throws.

How do I throw the dice? Click on the square marked /Click Me/ .
Keyboard: a) Use the tab or any arrow key to move the cursor to that square.
b) Hit enter to make the throw.

How do I move a piece?   There are two options: Drag a piece by the number of spaces dictated by the die or double click on the piece you want to move.   The computer will automatically move the piece by the appropriate no. of spaces.   Dragging   is accomplished by clicking on a piece and moving the mouse while the mouse button is still down.
Using the keyboard!
1) Use the tab or arrow keys to move the cursor to the pieces. To go to the next piece hit the tab or arrow key again.
2) Use the Enter key to make a move.

How many pieces can occupy a space?   Only one except in a safe-space.

What is a safe space?   More than one piece,   belonging to either one player or to rivals can occupy a safe space. The center space or the target space is by definition a safe space.   The darkest colored spaces, with the same color as the center space, are safe-spaces.   At the beginning of each game,   safe spaces are clearly marked.   For novice and medium levels,   the safe spaces remain marked throughout the game.

What is bumping?   When a player moves a piece (say RED) in to a space already occupied by an opponents piece (say CYAN),   then the CYAN piece is sent to its starting point. This process of sending an opponents piece to the starting point is called bumping.

The Winning Move: To move the last piece in to the center space,   a player must throw the exact number required for that move.   When,   for example,   a player needs a three to reach the center space,   if she throws a 4, 5, or 6 she loses her turn and must wait for another turn.

When does a game end?   When at least one player has moved all of his/her pieces to the center of the board and

all players have had an equal number of throws, the game ends. The player who gets all of his/her pieces to the center wins.

Can there be a tie? Yes! When two or more players get all of their pieces in the center space, the game ends in a tie.

Who can play?

This game can be played both by adults and children ages three and above.   There are in-built features that allow even three year olds who are yet to learn how to count but can use a mouse to play and enjoy the game.   In the beginning,   some children find the keyboard easier to use to select a game piece than positioning a mouse over it.

Number of players?

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Winning Move

To move the last piece in to the center space,   a player must throw the exact number required for that move.   When, for example,   a player needs a three to reach the center space,   if she throws a 4, 5, or 6   she loses her turn and must wait for another turn.

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Active Keys

ARROW keys	Helps to move around the screen (same as TAB).
TAB	Helps to move around the screen (same as ARROW keys).
ENTER	When cursor is on the click me square , makes the throw.
ENTER	When cursor is on a movable game-piece, makes the move.
ESCAPE	Performs an Undo during the game.
Any keystroke	Interrupts a demo!
F1	Same as selecting Hint! on the menu bar.
Right Mouse Button Click	Same as selecting Hint! on the menu bar.

Scoring

The score board is at the bottom right corner of the screen. The score board is color coded to match the colors of the players pieces. The score of the starting player is followed by an asterisk(*). The computer automatically keeps the score for you.

When you ask for a hint, the computer calculates the score and suggests a move that maximizes your advantage with respect to your nearest rival.

The score is a measure of how far a player has advanced her/his pieces and the vulnerability of these pieces to be bumped by the rival pieces.

At the end of the game the winnners point total is calculated by adding the differences between the winners score and the others. For example, if the winner scored 90 points and the other three players scored 70, 40 and 50 the winners point total is calculated as follows.

Winners points   =   { (90-70) + (90-40) + (90-50) } * 10
               =   { 20 + 50 + 40 } * 10
               =   { 110} * 10
               =   1100 pts

You need not understand the scoring method to play and enjoy the game. This information is given for players with an interest in probability and risk analysis.

Algorithm:

1) For each stopping position away from start, ten points are awarded. For example, at the start of a game, if RED moves a piece by 6 spaces, then his score is 60.

2) If instead of being at the start of the game, assume this move from home was made during the middle of the game. Also imagine that there is an opponents piece (Blue) that is less than six spaces (say four spaces) away from a Red piece. It is Blues turn to move and the probability that blue is likely to get a four is 1/6. Red is vulnerable and a throw of 4 by Blue could lead to Blue bumping the Red piece to starting position (where Reds score is zero). In other words, Red could lose 60 points, if Blue throws a four. The probability of Blue throwing a four is 1/6. In other word the probability of Red losing 60 points is 1/6. This could be neatly summarized into the following score for Red.

Reds score   =   Actual position   -   Actual Position * 1/6

             =   60   -   60 * 1/6

             =   60   -   10

             =   50

3) If in addition to Blue piece 4 spaces away, there was another Blue piece 5 spaces away, then the Red piece is vulnerable to a throw of either 4 or 5 by Blue. The probability of throwing a 4 or a 5 is 2/6. This situation can be neatly summarized as follows

Reds Score   =   60   -   60 * 2/6

             =   60   -   20

             =   40

4) The same could be expanded to the Red piece being vulnerable to more than two pieces.

5) If in the middle of a game, a player is faced with a difficult choice of having to pick from more than one possible move, a scoring system such as the one described above can lead to a logical decision that maximizes ones

own advantage.

Miscellaneous Info

Sound can be toggled on and off from the Game menu.

The speed with which game pieces move around the board can be chosen by the player from the Game->Game Speed.. menu item to be slow, medium or fast

Play Level can be chosen from the Options.. menu to be Novice, Medium or Expert

There are four available colors for a player to choose from: Red, Cyan, Yellow and Magenta.   If you choose the same color for more than one player,   the colors will be reassigned so that each player has game-pieces   that are unique in color.   The   location of the   players in the dialog box correspond to their location around the game board.

Max. Throw

Under the Options... dialog box you can choose a   Maximum throw value for the die to be 2, 6 or 12.   In each die, every number is equally probable.   For example,   in a die with a max. throw of 12,   you have as good a chance of getting a 12 as you do of getting a 7 or any other number in the 1..12 range.   For a small size board,   the max. throw value of 12 is not allowed.

VoRTeX REGISTRATION FORM

(You can print this form by selecting Print Topic from the Help File menu above)

Vel Micro Works   Toll Free: 1-800-VORTEX-S
PO Box 336   Phone: 1-302-239-4661
Hockessin,   DE 19707   Fax: 1-302-239-0505
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Please PRINT or TYPE: Todays Date: _____

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For credit card orders, please fill out the following information.

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Register VoRTeX for each machine on which the program is used.

Number of Copies ____ x $9.95   = $_____
(Optional) Enclose an additional $3.00 for a copy of the latest version = $_____
                    Total (in US dollars)   = $_____

Your registration name and   number will be sent to you within 48 hours of the receipt of this form.
Could you please tell us where you heard about VoRTeX? (Internet, AOL, Compuserve, Prodigy,   Other bulletin board,   magazine, a friend or other)   _____

Please give us your valuable comments and suggestions.   We love to hear from you!
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