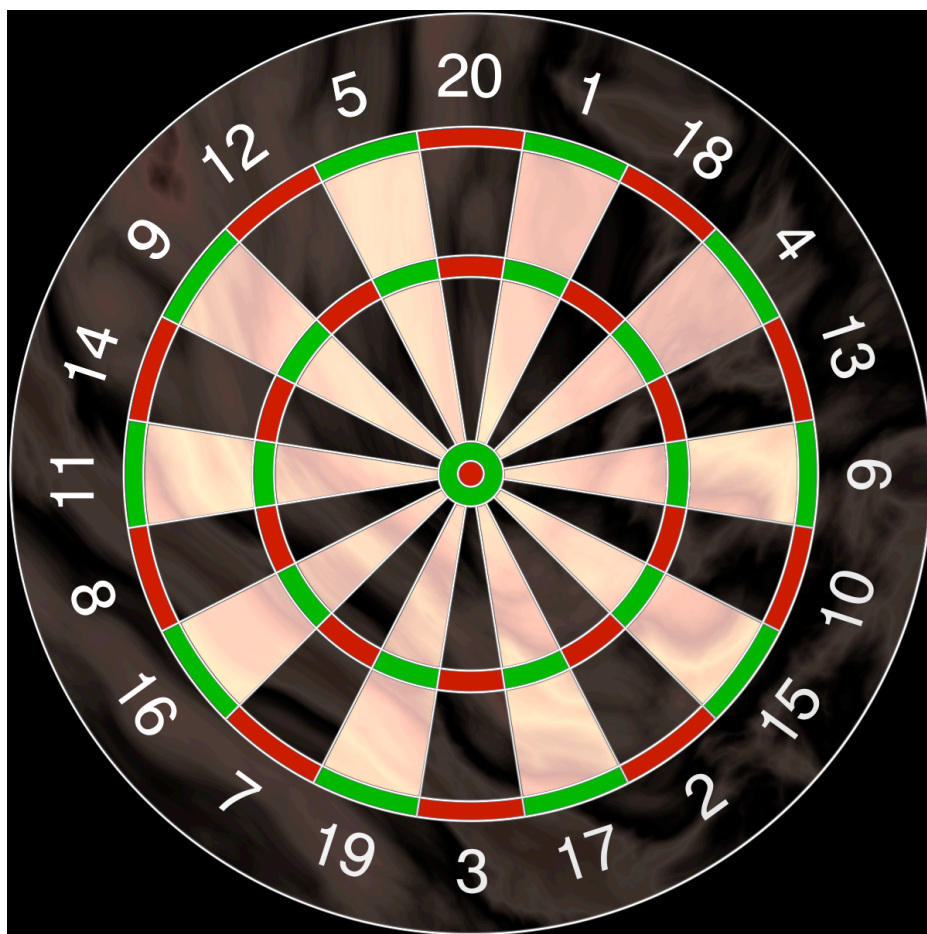


DartCalc User Manual

Version 3.2

AGASupport



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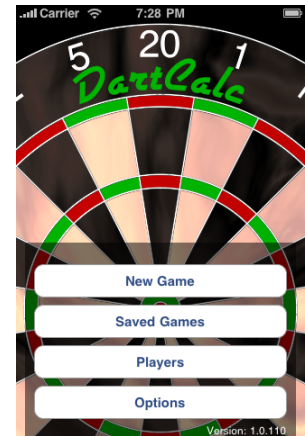
Overview

Welcome to DartCalc! This program is intended to help track the numbers in various forms of pub-darts. Such games can be simple or complicated to score depending on the game and the state of inebriation at the time. DartCalc makes scoring the game as mindless as touching dartboard and seeing what happens.

For the more serious dart player DartCalc manages statistics for each player over the course of the stored games, allows many different games and allows export of statistics for league play or just general tracking of progress.

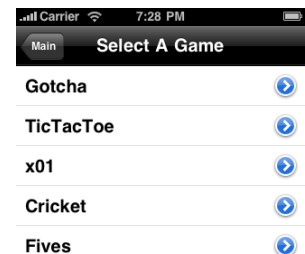
Getting Started

When you start DartCalc you will be presented with a screen that looks like the one on the right. There are four options to choose from: New Game, Saved Games, Players, and Options. Note that there is a version indicator at the bottom of the screen that you would use when reporting bugs or feature requests.



New Game

Selecting new game will take you to the game selection screen at the right. On this screen you can either tap the name of the game you wish to play or you may tap on the blue disclosure icon on the right side of the row. This will take you to the game's rules and help screen where you may read how to play the game.



Saved Games

Selecting saved games will bring you to the saved games list at the right. Tapping any row in this list will load the game. If a game has been named in the game options screen its name will show up here. If not, its name will be "no name". The date the game was added is shown as well as the type of game being played, x01, cricket, fives, etc... The number of players is listed and the game's *state*. The game will either be in the active games list, or the finished games list depending on whether the game was stopped in the middle or has already been won.



You may delete games by either clicking the Remove button in the title bar or swiping the row you want to delete. **Deleting a**

game from this list removes all statistics for that game from all players of that game.

Players

Selecting players will bring you to the player edit screen at the right. The players listed in this screen are “global”. These players may be added to multiple games. Statistics are stored in these players are unique to them. Tapping one of the rows will show you the statistics for that player and allow you to e-mail those statistics off for archival.

Players who’s name is followed by (AI) are computer players. AI players can be configured to have specific levels, as well as a defensive personality. A defensive personality changes how the player will select its next shots in games like Cutthroat Cricket. When you select an AI level the program will give you a brief description of that AI in terms of its cluster radius (how close to its target it can generally hit).

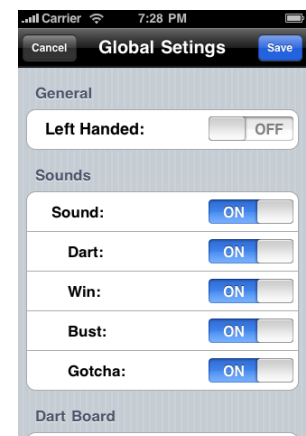


You may delete players from this list by tapping Edit or swiping the corresponding row. **Deleting a player from this list will remove all statistics from the player, as well as removing the player from all games in which the player is a member.**

Players who are removed from inside of games are not deleted from this list as it is assumed you wish to maintain their historical data, even if they cannot continue the current game.

Options

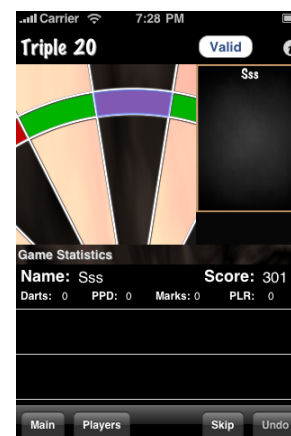
Selecting options will bring you to the Global Settings view. The global settings allow you to change the default options for games as well as more generic settings (i.e. left handed v/s right handed, statistics, or dart board zoom levels). Options changed in this view will be used as defaults when creating new games. Options changed from within a game will be specific to that game.



Data Input

General Input

In all games you input your scoring data by placing your finger on the dart board. When you do so the board will zoom into the set zoom level (6x by default) allowing easy selection on the board. In the example on the right a triple 20 is being selected. The selected piece of the dart board will be highlighted in blue. The score value selected shows on the top left of the dart board.



If you slide your finger to one of the edges of the board the board will scroll right, left, up, or down to allow you to select other values.

Skipping Throws

You can select the **Skip** button in the toolbar at the bottom of the screen to skip the remaining throws of the current player. In some games busting or missing your target may auto-skip the remaining throws for the current player. This happens when the remaining throws are irrelevant to the game.

Undo

You may skip throws by tapping the undo button in the toolbar at the bottom of the game view. Undo will work for any throws entered since the view was loaded. You may not undo throws that were entered before loading the game view (i.e. from a saved game or before editing players or game options).

Valid Throws

Above the throw board is the “Valid” button. This button, when pressed, will cause the dart board to show all throws that are legal in the given game. In some games additional information may be obtained by holding the valid button.

X01

Players

One or more

Description

The x01 games are some of the most common dart games.

Area of play

All of the numbers are valid scoring areas. The only area of the board which is not a valid scoring area is the outer area outside of the doubles ring.

Object

The object of the game is to be the first player to reach zero(0) points exactly.

Scoring

All players start with the same score. Depending on the game this might be 301, 501, 601, 701, 1001 or any other positive number ending in '01'. As players throw darts, the points they score for the round are subtracted from their starting amount. In some games players may wish to add points to reach a target of x01 (301, 501, etc). While that is fine, this document will assume we are counting down to a target score of zero(0) instead.

- A dart that lands in the double ring, has its corresponding value doubled.
- A dart that lands in the triple ring, has its corresponding value tripled.
- A dart that lands in the single bullseye, has a value of twenty-five(25).
- A dart that lands in the double bullseye, has a value of fifty(50).

Example

Franklin is playing a game of 301 and it is his first throw. On his first toss he strikes the board on the double twenty. The score for that one throw is twenty doubled, or forty. Forty is then subtracted from his score of 301, leaving him with 261.

Play

Play begins by determining which player will throw first. This is commonly done by having players 'diddle for the middle', but any other method is fine.

Diddle for the Middle

Each player will throw one dart aiming for the center bullseye. The order of play is determined by who threw closest, second closest, and so on. Players usually leave their one thrown dart on the board during the 'diddle' until all players have thrown. The closest dart is removed and given back to the player who threw it. This player will be the player to throw first.

After determining the order of play, players will take turns throwing their set of three darts and scoring them. The player to reach a score of zero(0) first is the winner. There are some other complications though.

If a player is left unable to 'go out' even if they were able to throw more darts, this player has busted.

Bust

A player has busted when he or she is unable to get their score closer to zero. In a 'Straight Out' game, this can only happen when the player has a score that is less than zero(0). In a 'Double Out' game this can also happen when a player has a score of one(1) since there is no double that results in a score of one(1). Another way to bust in a 'Double Out' game is to reach zero(0) points without having the last dart be a double.

When a player busts, all points tallied for that round are ignored. In some games players might wish to impose a stronger penalty for busting. In those games points equal to the amount the player's score went negative are added to the player's score placing them further from their goal of zero(0) than they were before.

Example

Franklin has a remaining score of four(4) in a single out game. On his first throw for the round, he scores an eighteen(18). This would bring his score to a negative fourteen (-14) so he gets no further throws this round and all points he has scored this round are ignored leaving him with a score of four(4) again.

Double Out

In a game where double out is required, a player must score their last dart on a double region of the board. This makes going out much more challenging. If a player's score is zero(0) but their last throw was not a double, that player has busted.

If “master out” is set in the global options a player may hit triple out as well as double out for a valid out shot. This allows an out at 60, 57, and 64 in addition to the normal shots.

Example

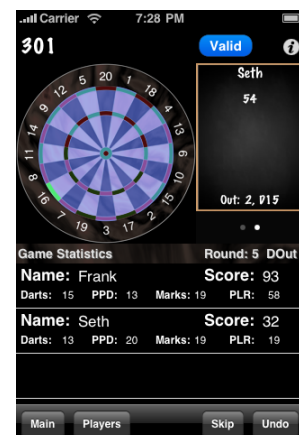
Franklin is left with a score of four(4) in a double out game. Somehow he throws a single two(2) leaving him with a score of two(2) so far. The only way to go out now is with a double one(1). He throws a single one(1) instead and busts.

Double In

In a game where double in is required, a player cannot score points until he or she has first thrown a double.

Example

Franklin is starting a game of 301 with double in. On his first throw he strikes a single twenty(20). This is not a double and is therefore not scored. On his remaining two throws he scores a double five(5) and another single twenty(20). This leaves him with scoring thirty(30) points for the round and ending up



with a score of 271.

Straight In

A straight in game is a game that doesn't require throwing doubles to begin scoring. This type of game is recommended for beginners.

Straight Out

A straight out game is a game that doesn't require throwing a double on their last dart to go out. This type of game is recommended for beginners.

Valid Throws

In an x01 game the valid throws button will show you which numbers are valid (blue shade), which are invalid (dark red shade), and which numbers will allow you to go out (green shade). The example to the right shows a 301 game with double out set and a valid throws selected.

Gotcha

Players

Two or more

Description

Gotcha is a competitive game where players race to a score of 301. It is similar to x01 but with a twist. Players can also nuke their opponent's scores down to zero points by tossing a dart that brings them to the exact score of their opponent.

Area of play

All of the numbers are valid scoring areas. The only area of the board which is not a valid scoring area is the outer area outside of the doubles ring.

Object

The object of the game is to be the first player to reach three-hundred-and-one(301) points exactly.

Scoring

All players start with zero points. As players throw darts, the points they score for the round are added to their score.

- A dart that lands in the double ring, has its corresponding value doubled.
- A dart that lands in the triple ring, has its corresponding value tripled.
- A dart that lands in the single bullseye, has a value of twenty-five(25).

- A dart that lands in the double bullseye, has a value of fifty(50).

Example

Franklin is playing a game of Gotcha and it is his first throw. On his first toss he strikes the board on the double twenty. The score for that one throw is twenty doubled, or forty. Forty is then added to his score of zero(0), leaving him with 40.

Play

Play begins by determining which player will throw first. This is commonly done by having players 'diddle for the middle', but any other method is fine.

After determining the order of play, players will take turns throwing their set of three darts and scoring them. The player to reach a score of three-hundred-and-one(301) first is the winner. There are some other complications though.

Bust

A player has busted when he or she is unable to get their score closer to three-hundred-and-one(301). This can only happen when the player has a score that is more than 301.

When a player busts, all points tallied for that round are ignored. In some games players might wish to impose a stronger penalty for busting. In those games points equal to the amount the player's score went over 301 are subtracted to the player's score placing them further from their goal of 301 than they were before.

Example

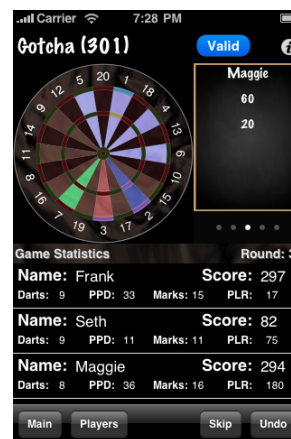
Franklin has a remaining score of two-hundred-and-ninety-nine(299). On his first throw for the round, he scores an eighteen(18). This would bring his score to a three-hundred-and-seventeen(317) so he gets no further throws this round and all points he has scored this round are ignored leaving him with a score of 299 again.

Gotcha

When a player has thrown a dart that brings them to the exact same score as one of his or her opponents, he or she has 'got' them. The opponent's score is reduced to zero points putting them in last place. Since a player usually has three darts per round, this can be done to up to three different opponents in a round.

Example

Franklin has a score of 299. Seth has a score of 283. On Seth's first dart for the round he hits the single sixteen(16) bringing his score up to 299. Since this is the same score



as Franklin, Franklin's score is dropped down to zero(0) points. Seth then throws his remaining two darts hoping to reach 301.

Valid Throws

In a Gotcha game the valid throws button will show you which numbers are valid (blue shade), which are invalid (dark red shade), and which numbers will allow you to go out (green shade). In addition a light red color will be used to indicate which numbers will allow you to *get* one of your opponents, sending their score back to 0. In the image to the right a 3 will knock someone back, a 7 will win the game, and there are a few valid shots (5, 1, 4, 6, and 2).

Cricket

Players

Two or more

Description

The Cricket games are some of the most common dart games.

Area of play

Only the largest numbers on the board are valid including the bullseye. These numbers are 20, 19, 18, 17, 16, 15 and bullseye.

Object

The object of the game is to be the first player to close out each section by hitting them each three times. The winning player is the one who closes out all the numbers first while also having the best score.

Scoring

In Cricket a player's score is not only represented by a number, but also by the number of times the player has hit each of the valid scoring areas.

- A dart that lands in the double ring, counts for two hits in the area.
- A dart that lands in the triple ring, counts for three hits in the area.
- A dart that lands in the single bullseye, counts for one bullseye.
- A dart that lands in the double bullseye, counts for two bullseyes.



Description

This is a difficult game that requires scoring with each dart. It also makes use of addition and division.

Area of play

All of the numbers are valid scoring areas. The only area of the board which is not a valid scoring area is the outer area outside of the doubles ring.

Object

The object of the game is to be the first player to reach fifty-one(51) points exactly. The game can be played to a higher or lower score, but fifty-one is the most common.

Scoring

All players start with a score of zero(0). All three of a player's darts must land in a valid area of play or the player will score no points. After all three darts have been thrown, their values are summed. If the value is evenly divisible by five(5) then that divided value is added to their score. If the result of the thrown darts is not divisible by five evenly, the player receives no points for the round.

- A dart that lands in the double ring, has its corresponding value doubled.
- A dart that lands in the triple ring, has its corresponding value tripled.
- A dart that lands in the single bullseye, has a value of twenty-five(25).
- A dart that lands in the double bullseye, has a value of fifty(50).

Example

Franklin is playing a game of fives and it is his first throw. On his first toss he strikes the board on the double twenty. The score for that one throw is twenty doubled, or forty. For his second toss he strikes the one(1), and the third is a four(4). Forty plus one plus four is forty-five(45). Forty-five divided by five is 9. Franklin has scored 9 points.

Play

Play begins by determining which player will throw first. This is commonly done by having players 'diddle for the middle', but any other method is fine.

After determining the order of play, players will take turns throwing their set of three darts and scoring them. The player to reach a score of 51 first is the winner. There are some other complications though.

If a player is left unable to 'go out' even if they were able to throw more darts, this player has busted.

Bust

A player has busted when he or she is unable to get their score closer to the target of 51. This can only happen when the player has a score that is greater than the target.

When a player busts, all points tallied for that round are ignored. In some games players might wish to impose a stronger penalty for busting. In those games points equal to the amount the player's score went negative are added to the player's score placing them further from their goal of zero(0) than they were before.

Example

Franklin has a remaining score of fifty(50). If he wants to go out this round, his darts must sum up to five(5) so that he will score exactly one point. The only way to do this and still score with each dart is to throw two twos(2) and a one(1) or two ones(1) and a three(3). Somehow he scores three bullseyes instead. That gives him 15 points (75/5) which is way more than he needed. All the points he has scored this round are ignored leaving him with a score of fifty(50) again.

Valid Throws

In an Fives game the valid throws button will show you which numbers are valid (blue shade), which are invalid (dark red shade), and which numbers will allow you to go out (green shade). In fives, since you have to score with each dart, and that score total is divided by 5 each round the valid throws can be very helpful, but also somewhat confusing. If you have 7 points left to go out and press the Valid button triple 20 will be invalid but 20 will be valid, even though 20 is greater than 7. This is because you need 35 points in darts to gain 7 points in a round of fives, so 20 is a valid throw on your first dart.

Tic Tac Toe

Players

Two

Description

Tic Tac Toe is an unusual dart game with a familiar twist.

Area of play

The only valid areas of play are the 20, 18, 6, 2, 3, 7, 11, 12 and bullseye. This can change if you use the random numbers option. When using random numbers the only valid areas are the numbers available in the tic tac toe grid during play.

Object

The object of the game is the same as standard tic-tac-toe, to get three Xs or Os in a row.

Scoring

There are no points in Tic Tac Toe. To claim a square with an X or an O, a player must first score in the appropriate area four times. Until a player has scored four times, the number is open and available for the opponent to claim. Each mark a player has scored can be counted with a small 'X' or 'O' in the box. Once the count of Xs or Os in a box reaches four, place a large X or O in the box.

- A dart that lands in the double ring, counts as two hits.
- A dart that lands in the triple ring, counts as three hits.
- A dart that lands in the double bullseye, counts as two hits.

Example

Franklin is playing a game of Tic Tac Toe and it is his first throw. On his first toss he strikes the board on the double twenty. This gives him two small Xs on the board. For the remaining two throws he doesn't score in valid area. His opponent's first toss scores a triple twenty giving him three small Os in the box. The second toss scores a single twenty, closing out the box for a big 'O'. Franklin can no longer get an 'X' in that box and must try to shoot elsewhere.

Play

Play begins by determining which player will throw first (and be X). This is commonly done by having players 'diddle for the middle', but any other method is fine.

Valid Throws

In a Tic Tac Toe game the valid throws button will show you which numbers are valid (blue shade) and available for you to gain an X or O.

Computer Players (AI)

Computer players are added just like any other player. When you create a new player you may select "Computer Player", causing the Defensive AI and AI Level options to slide into view. The AI can play almost every game (except TicTacToe) and has a skill level specified when you add them in. You can change the computer players AI level at any time by selecting the player from the global Players menu and then clicking the "Edit Player" button at the bottom of the screen. This allows you to advance a single computer player's AI level as you become a more skillful player.

In the global options you can enable a delay for the computer players. This delay will pause the UI after the computer player's throws so you can see what they hit. This delay is off by default.

Computer players keep stats just like a normal player. In fact, you can make a normal player a computer player and visa-versa at will. This isn't recommended as it 'dirties' the statistics, but it is possible.

Teams

You may add players to teams. When starting a game, after adding your first player press the "Add Team" button on the bottom toolbar. This will automatically add your first player to "Team 1". You can now add more players to this team by pressing the "+", or create a second (or third, fourth etc) team by pressing "Add Team" again. You may drag and drop players between teams by pressing "Reorder" in the top right corner.

Teams are scored as a group, but each player is listed individually. For example in X01 every team member will have the same score, and that score will adjust for all members every time someone throws a valid dart.

Pressing "Play Again" at the end of a game will keep the same teams for the next game, saving you the time of setting up the teams for each leg of a match.

Statistics

Since DartCalc v2 you have been able to email statistics off the handheld device to your e-mail address. For this to work you have to have internet access as well as the Apple Mail application configured to send e-mail.

Credits

Beta Testing

Seth McClain (*psym*)
Franklin Marmon (*Agathezol*)
Brian Fish (*phantom*)
The entire Dart Night gang

Documentation

Seth McClain (*psym*)
Franklin Marmon (*Agathezol*)

Graphics

Seth McClain (*psym*)

Programming

Franklin Marmon (*Agathezol*)

Thank You's

A program like this doesn't come together without contributions from a number of people. We would like to thank the significant other's who have put up with our continual banter about the features and bugs in Dart Calc, our friends for the many nights of testing and brain storming, and you the user for purchasing our product. We would also like to thank The Hyde Company for their continued support of educational programming.