

FreeCell

COLLABORATORS

	<i>TITLE :</i> FreeCell		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		October 9, 2022	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	FreeCell	1
1.1	FreeCell	1
1.2	Overview	1
1.3	Playing the Game	2
1.4	Rules of the Game	3
1.5	Strategies and Hints	5
1.6	Game Menu Commands	7
1.7	Options Menu Commands	8
1.8	Help Menu Commands	9
1.9	Keyboard Commands	10
1.10	Board Pieces	10
1.11	Statistics Files	11
1.12	Other Bits & Pieces	11

Chapter 1

FreeCell

1.1 FreeCell

```
=====
==
==  FREECELL  ==
==
=====
```

A challenging game of patience using a single deck of cards.

How to Play

- Overview
- Playing the Game
- Rules of the Game
- Strategy and Hints
- Commands
 - Game Menu Commands
 - Options Menu Commands
 - Help Menu Commands
- Keyboard
- Other bits

1.2 Overview

FreeCell is a logic puzzle in the form of a solitaire card game. It is unlike most solitaire games, however, in that there is no luck involved after the initial shuffle. There are no hidden cards; they are all dealt face up at the

start of the game.

FreeCell has an extremely high rate of 'solvability'. It approaches something like 99.9%. There is a FAQ on the web somewhere that gives more information on this, however, this is based on the PC version of FreeCell. So, there are some games that are not solvable. If any are found on this version, please let me know.

As of version 1.5, a new set of rules has been added, "Baker's Rules". This is almost the same as the original, except that you can only play, for example, the three of diamonds onto the four of diamonds. Everything else is the same. This makes the game somewhat harder. I've been told that solvability is now roughly 70%.

If you have any comments, bug reports or suggestions, please e-mail me on

darrylh@powerup.com.au

1.3 Playing the Game

FreeCell is similar to other solitaire games you may have played. ↩

You play red

cards on black cards and black cards on red cards (for Baker's Rules, its the same suit). The object of the game is to move all the cards to the

Home Cells

,

piling up cards of the same suit starting with the ace.

Starting Up:

FreeCell has one tool type which is originally configured to allow multiple

statistics files

. If you are ever only going to use one stats file, you can switch this off and save yourself a file requester. Bring up icon info - Right-Amiga I, and set the tool type 'MULTIPLESTATS' to 'NO'. If you're happy with multiple stats files (more than one person plays this game on your computer, or you want separate stats files for whatever reason), leave it as it is.

To only use one stats file from the CLI, just enter any parameter, eg.

FreeCell anycharacter

If you type 'FreeCell' by itself, you will get the stats file requester.

Once you start the game, you will get a file requester where you can select the stats file you wish or create a new one. See the above link for more information.

The FreeCell screen will then be displayed.

To Start a New Game:

From the Game Menu, choose New Game, or press F2, or click on the first button on the dock window. A new game will be chosen for you at random. The cards will be shuffled and then dealt onto the main screen.

To Select a Specific Game:

From the Game menu, choose Select Game, or press F3, or click on the second button on the dock window. A requester will be displayed where you can enter the game number of the specific game you want to play.

The game number refers to a unique shuffle and deal of the cards. There are 999,999,999 different Game Numbers available in FreeCell. I can't guarantee that they're all different, however.

To Play a Set Game:

From the Game menu, choose Play Set Game. This will bring up a file requester (pattern match 'setgame.#?'). The file you select consists of a deck of cards arrayed in any order you choose. You can then play out this game. Go

here
for more information.

To Move a Card:

Click the card you want to move. It will be highlighted. Then click the area to which you want to move the card. The card will move to that area (provided it is a legal move). To cancel a move, click again on the selected card.

To Reveal a Partially Hidden Card:

Click the card with the right mouse button.

To Move a Stack of Cards:

You can move an ordered stack of cards from one column to another if there are enough free cells open. To move a stack, click any card in the stack; then click the column that you want to move the stack to. Provided that there are enough free cells available, the cards will move.

To Quickly Move a Card to a Free Cell:

Double-click the card you want to move to a free cell (must be a free cell, of course). This option can be turned off via the
Options menu

.

To Undo the Last Move:

Use the menu item from the help menu, or use the last button on the dock window.

1.4 Rules of the Game

This section describes the rules of FreeCell.

Area and Objective:

The FreeCell game area consists of the
home cells

,

free cells

,

and the deck of cards, which is dealt face-up at the beginning of the game.

The object of the game is to move all the cards to the home cells, using the free cells as placeholders. To win, you must make four stacks of cards on the home cells: one for each suit, with the ace on the bottom and each card stacked in order of rank.

Legal Moves:

There are four legal moves in FreeCell:

1. You can move any card from the bottom of a column to an empty free cell.
2. You can move any card from a free cell or from the bottom of a column to a home cell if that card is one greater in rank than the card in the home cell, and of the same suit. For example, you can move a four of clubs on to a three of clubs in a home cell. Aces can always be moved to an empty home cell.

NOTE: At the end of each move, FreeCell will transfer unneeded cards to the home cells. A card is unneeded if there are no lower-rank cards of the opposite colour left in the playing area.

3. You can move a card from a free cell or from the bottom of another column as long as the rank of the card is one less than the rank of the card you will place it on, and the colours of the cards are different. For example, you can move a black three onto a red four. Any card can be moved to an empty column.

NOTE: If you are playing "Baker's Rules", this move is slightly different. The suit has to be the same. For example, the three of hearts can only be played onto a four of hearts.

4. You can move an ordered stack of cards from one column to another column if the rank of the top card in that stack obeys rule three, and there are enough free cells to accomplish it.

If you move the stack to an empty column, a requester will appear asking whether you want to move a single card, column of cards, or neither. Click on the appropriate button.

Winning:

You win when you have moved all the cards from the columns to the home cells.

You are able to save the solution to the game just completed if you wish. Click the 'Save solution' button. This creates a text file called:

```
Solution.game#####_Rn
```

(where 'R' is the rules version, either 'O' for original, or 'B' for Baker's rules, and 'n' is for the number of FreeCells if not 4)

in a directory called Solutions. Note that this directory must exist first. The file is made up of two character pairs separated by a space, ten to a line ↔

With this you can follow the solution that someone else made when they went

through a game that you're having trouble with.

The first character of each pair is the 'from' column, and the second is the 'to' column(!). The main columns are represented by the numbers from '1' to '8', the free cells by 'a' to 'd', and the home cells by 'h' to 'k' (for any that you move yourself). If a column move is done to an empty column (and the column move requester comes up), this is represented by the number of cards moved placed between parentheses, ie. 35(3) - three cards moved from column 3 to empty column 5.

Losing:

You lose if there are no more legal moves. When you lose a game, you can try the same Game Number again without further affecting the statistics. To do this, choose Restart Game from the Game Menu or click the Same Game checkbox on the end-of-game requester and click Yes.

A counter is displayed on the title bar of how many attempts you have made on the current game.

1.5 Strategies and Hints

This section contains helpful hints for playing FreeCell ← successfully.

Winning at FreeCell requires patience. A common mistake is to make a move just because it is possible, and then to realize that it cuts off another move.

- * Spend the first few games becoming familiar with all the moves. Be sure you understand how moving a stack of cards works, and what the limitations are.
- * Study the deck carefully before you make your first move. Look for trouble spots like aces hidden at the tops of columns, or both red sevens stacked behind three kings.
- * Use your
 free cells
 carefully. There are only a maximum of four. This
number can be modified from 0 to 4 via the
 Options menu
 . Try to keep them
unoccupied as much as possible. If they are full, and you can't move them
elsewhere, you will be severely restricted in what you can do.
- * When you are first learning FreeCell, it may be helpful to get messages that tell you when you have made an invalid move. To get messages, choose
Messages from the
 Options menu
 .
- * Look for a column that will be easy to clear (cards that can be moved to other columns, some Aces...). Once it's clear, try to put the highest card at the top of the column (preferably a King) and build on it.

A Few Strategy Tips for Baker's Game (by David Antczak).

As you experiment with Baker's Game, you will find that the small change in the rules necessitates a somewhat different approach in the search for a solution. Free Cell is usually a pleasant diversion, with almost 100% of the deals being solvable, and the timing of moves and placement of cards is rarely critical. Mathematicians estimate that Baker's Game, on the other hand, is only solvable 70% of the time, and you may soon get the feeling that the missing 30% are the easy deals! With that in mind, here are a few pointers to get you started on the road to more thoughtful and successful play of this very fine game. I will refer to the three areas of movement by the somewhat standard terms of "tableau", where the cards are first dealt into columns, "cells", where the cards can be temporarily stored, and "foundation", the goal area. Also, the term "empty column" means any area in the tableau where cards were dealt but where none are at the present time.

If you are a longtime player of Free Cell, you will first need to re-orient your thinking a bit so that you are looking for the proper cards to play upon!

When the cards are first dealt, resist the temptation to dive right in and start moving them around! Take a few minutes to take stock of the situation and begin to formulate a plan. If any cards can be immediately moved onto the foundation without disturbing other cards, go ahead and move them -- there will be no better place for them and it simplifies the tableau to have them out of the way. After that, continue to scan the tableau looking for three main things: the location of all aces, deuces, and treys, the location of all kings, and columns that are possible candidates for clearing.

Finding the A-2-3 of each suit often gives some immediate ideas for a plan of attack on the whole deal. It isn't necessary to memorize the location of each, but find them and see what problems they pose. Are they dealt near the top of the column? Are higher cards of the same suit below them in the column? "Well begun is half done" holds very true in Baker's Game, and moving these cards to the foundation will substantially reduce the crowding in the tableau.

The kings have to be located and kept in mind for one small but often important reason. When other cards are played into the cells, they can be returned to the tableau either by placement on the next higher card or by playing to an empty column. Kings, however, having no higher card, can only return to the tableau in an empty column. This means, of course, that kings often block the cells longer. Always have this in mind when you move a king up to the cells.

Clearing a column is almost always a good idea, if you can do so and not lose too much mobility. Empty columns can be filled with the cards of your choice, a sequence of cards that is ready to fly to the foundation as soon as they are released. Look for columns that have a lot of low cards, or a sequence of one suit that can be untangled, or a lot of cards that can be scattered around the tableau without tying up the cells. Once a column is clear, try to pick a suit and a card from that suit that will let you move a lot of cards into that column. Keep in mind, however, that it may be more important to move only a few cards if those cards in turn free up other critical cards.

There is a rough pattern to this game that often works in practice as the skeleton of a plan -- cards are scattered in the tableau and the cells, a column is cleared, cards are consolidated in that column and the cells are cleared, and then cards are scattered in the cells and tableau again.

There is one critical difference in play between Baker's Game and Free Cell. In

the latter, if you have a six-card sequence in the tableau, say 9-8-7-6-5-4, you can move this in two stages if you have even two cells open by moving the 6-5-4 onto the "other" 7, moving the 9-8-7, then moving the 6-5-4 back to the original 7. But Baker's Game has no "other" 7! Therefore, sequences of six cards or more can never be moved in the tableau, even if all four cells are open. Be very wary of building long sequences with any cards above them, and be especially wary of building any sequences with lower cards in the same suit above them in the same column.

There is one more tip on play I would pass on -- don't be too quick to surrender on any deal unless you can actually demonstrate that it can't be solved. Use the undo feature and keep working at stubborn deals, even if you have to undo all the way back to the start. This game is much more like a puzzle than mental chewing gum, and some of the deals are tough nuts to crack. There is enormous satisfaction in solving one of the tough deals after working on it for hours or days or even weeks!

Happy Solving!

1.6 Game Menu Commands

This section contains information about Game menu commands in FreeCell.

New Game:

Deals a new game of FreeCell. Picks the game number at random.

Select Game:

Lets you pick a specific game of FreeCell and deals it.

Restart Game:

Redeals the current game of FreeCell. It will ask you if you want to resign this game - but only if it's not a 'setgame'. This option is also available from the dock window (third button).

Play Set Game:

Lets you arrange the deck as you want. Create a text file that starts with 'setgame.' and enter the cards as they will be dealt - from left to right, bottom to top. An example file is included in the archive. The game (PC11982) happens to be impossible to solve.

Each card is defined by two characters as follows: The first character of each card is the rank, ie. Ace is 'A', 2 to 9 as 2 to 9, ten as 'T', Jack as 'J', Queen as 'Q', King as 'K'. Each suit is represented by it's first character. For example, the 5 of hearts is '5H' and King of Spades is 'KS'.

Once the file is created, select this menu option and a file requester will allow you to select a game to play! Note that this game will not affect the statistics.

Browse Solution:

This is where you can load the solution to a game and play through the solution. It doesn't allow you to continue playing the game your own way. It's mainly for educational or fun purposes.

Note that the number of FreeCells is also saved with the solution (if not

four). This is so you can see how the original solver solved it with less than four FreeCells. If the game was solved using Baker's Rules (from v1.5), this is also saved with the game.

A file requester allows you to choose any game solution. The game is then loaded and dealt. A video control unit is displayed which has four buttons:

- Rewind: Restarts the current game so you can watch it again.
- Undo: Undoes the previous move - possible all the way to the start of the game.
- Stop: Stops the fast forward.
- Play: Plays one move of the solution (includes any AutoMove).
- Fast Forward: Plays the solution continually (until the game ends). There are three speeds from slow to normal speed.

There are also keyboard 'shortcuts':

- Rewind: Shift-left arrow.
- Undo: Left arrow.
- Stop: Up or down arrow.
- Play: Right arrow.
- Fast Forward: Shift-right arrow.

Rules:

There are two options: Original or Baker's. Original is how it is described in these rules. Baker's is slightly different in that you can only play a card onto another card if it is the same suit (not the other colour) and one less in rank (as for the Original).

A corollary to this is, if the Ace of a particular suit is already 'home', any other cards of that suit can be placed immediately home without waiting for lower cards of the opposite colour to be placed home.

About...

Shows the current version of FreeCell and etc. etc...

Exit:

Exits FreeCell. You can exit at any time, even in the middle of a game - when this happens, you have the option of saving the unfinished game for completion later (not for 'setgame').

1.7 Options Menu Commands

This section contains information about the Options menu commands in FreeCell.

Statistics:

Shows you your wins, losses, and streaks. You can clear the statistics by clicking on the Clear button. The statistics are saved when you exit the game.

Note that if you lose a game and play it again and eventually solve the

game, that game is still recorded as a loss, but only a single loss.

Messages:

Turns the messages for invalid moves on or off. If messages is checked, you will receive messages when you attempt an invalid move, and the card selected will be reset. If messages is unchecked, nothing will happen when an invalid move is attempted, the card initially selected will remain selected.

DoubleClick:

Double-clicking a card on the main board can quickly move this card to an empty free cell. If this is not wanted, select this menu item to toggle this option. You will then have to manually move the card to the free cell.

Number of FreeCells:

This option will allow you to select from 0 to 4 FreeCells for the game. Just in case you thought the games were getting too easy!

ScreenMode...:

A screen mode requester! Here you can select the screen mode that fits your fancy. If you choose the old PAL or NTSC modes, a different card set is loaded (they're a bit shorter). Any current game is not interrupted.

Tool Dock:

This opens a tool dock window which contains four buttons:

- New game
- Select game
- Restart game
- Undo move

This is for lazy people who can't be bothered using menus all the time.

Palette...:

Here you can change the palette to your liking if the cards are too bright or too dark and save the changes if you wish. The palette is saved to a file called 'palette.?' (where ? is the current stats file you have open - defaults to 'default'). If the file exists when the game is started, this palette is loaded, else the (original) default is used.

Game animation speed:

This allows you to slow down the animation speed of the cards when they move around the screen. There are two speeds: normal and slow. I've added some extra 'steps' for the slower speed, so the animation appears smoother.

Don't Keep the Stats:

This allows you to temporarily stop the gathering of statistics during game play. Wins and losses are not logged. Unfortunately, at the moment, this allows you to cheat a little - if the game looks hard, put this option on, then play the game. If it looks as if you'll win, switch this option off before you get that far. (You didn't hear this from me.)

1.8 Help Menu Commands

This section contains information about the Help menu commands in FreeCell.

Undo Move:

Allows you to undo any previous moves from the start of the game. This option is also available from the dock window (last button).
(I still think it's cheating!)

How To Play:

Brings up the guide document. You must close it to continue playing.

You can also use the 'help' key to bring up the guide.

1.9 Keyboard Commands

This section contains information about the keyboard commands in FreeCell.

New Game:

To start a new game, press the F2 key.

Select Game:

To select a game to play, press the F3 key.

Quit:

To quit, you can press the Q (shift q) key.

Display Statistics:

To display the statistics, press the F4 key.

Free Cells:

To select a particular card in the free cells, press the 0 key repeatedly to cycle through them.

Columns:

The eight columns are numbered 1-8. To select the bottom card or a stack of cards, press the column number.

Home Cells:

You can transfer a card to a home cell by selecting the card and pressing 9.

Revealing Hidden Cards:

To flip through all cards in a column, type the column number once to select it and again to cancel the move.

FreeCell Guide:

You can use the 'help' key to bring up the Guide.

1.10 Board Pieces

When the game is first started, you have a mostly empty screen. ←
The game
board is built up as follows:

- * The four Free Cells (top left). This is a temporary holding place for any cards you wish to put there. When moving cards between columns, any free spaces here are used in the move.

You are able to set the number of FreeCells available for play from 0 to 4. This is under the

Options menu

. Obviously, not many games are solvable without any FreeCells, but I dare say there are some.

- * The four Home Cells (top right). This is the eventual destination of all the cards (we hope!). Aces can be played to home cells immediately, and other cards of the same suit can be played in order on top of them. You win the game by moving all the cards to the home cells.
- * The main playing board. Here there are placed 8 columns of cards, all dealt face up.

1.11 Statistics Files

The statistics file is your record of how well you do playing this ↵ game. It shows how many games you've won and lost this session and also keeps a running total overall. This can be cleared by pressing the Clear button on the

stats requester

.

The stats file also stores your preferences in playing the game. It stores whether you like having messages, the current screen mode, whether you want double-clicking to quickly move a card to a vacant FreeCell, and other things as well.

To create a new stats file, simply enter a name in the file requester at the beginning of a sessions play, such as 'stats.Fred' or 'stats.Games100-200', then press enter, or click OK. When you end the session (quit FreeCell), the stats file will be saved under that name.

To use an existing stats file, simply select the one you want on the stats file requester.

Note: If you have multiple stats file switched off (see 'Playing the Game'), the only stats file will be called 'default'.

1.12 Other Bits & Pieces

The font I use for the game is 'xen 11 point', and the font for this help file is 'xcourier 13'. Both are included in the archive. Please copy them to your FONTS: directory.

This version of FreeCell was written by Darryl Hartwig using DICE 3.0. I've coded the game for WB3.0, so it might not work on WB2.0 - maybe someone can

let me know.

If you have any bugs you would like to see fixed up, or any suggestions for improving the code, e-mail:

Darryl Hartwig

darrylh@powerup.com.au

If you find some games that you're not able to solve (or eventually solved some hard games), let me know so I can have a go.

With the new 'solution saver' (from version 1.2), you'll be able to e-mail the solution of any hard-to-solve games to me and I'll include them (eventually) on my web site:

<http://www.powerup.com.au/~darrylh/c.html>

This is my first attempt at releasing anything into Aminet, so go easy on me.

This game is FreeWare, but I'd like an e-mail if you download and play it. The usual legal restrictions apply for this type of software. All the code in the archive must be kept together.

```
<fonts>
  <xcourier>
    11
    13
    15
  <xen>
    8
    9
    11
  XCourier.font
  XEN.font
<Solutions>
  setgame.PC11982
  setgame.PC18492
  Solution.game310760976
DeckOfCardsLarge.imagedata
DeckOfCardsSmall.imagedata
fonts.info
FreeCell
FreeCell.guide
FreeCell.guide.info
FreeCell.info
FreeCell.readme
Solutions.info
```

Have fun playing the game. I sit there and play it all day!

Ciao, Darryl.
