FreeCell

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## **Chapter 1**

## FreeCell

## 1.1 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.

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

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## 1.3 Playing the Game

FreeCell is similar to other solitaire games you may have played.  $\leftrightarrow$ You play red cards on black cards and black cards on red cards. 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), 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  $% \left( {{{\mathbf{x}}_{\mathbf{x}}} \right)$

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.
- 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:

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  $\leftrightarrow$ 

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 affecting the statistics. To try the same game again, choose Restart Game from the Game Menu or click the Same Game checkbox on the end-of-game requester and click Yes.

## 1.5 Strategies and Hints

This section contains helpful hints for playing FreeCell  $\, \hookleftarrow \,$  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.

## 1.6 Game Menu Commands

This section contains information about Game memu 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.

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.
- 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.

-	Stop:	Up	or	down	arrow.
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- Play: Right arrow.
- Fast Forward: Shift-right arrow.

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. 1.8 Help Menu Commands This section contains information about the Help menu commands in FreeCell. Undo Move: Allows you to undo the last move if you either made a mistake or simply don't like your last move. You can only undo the last move. This option

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.

is also available from the dock window (last button).

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

## 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. 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.  $\leftrightarrow$  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 13 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/freecell.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> Solution.game310760976 DeckOfCardsLarge.imagedata DeckOfCardsSmall.imagedata fonts.info FreeCell FreeCell.guide FreeCell.guide.info FreeCell.info FreeCell.readme setgame.PC11982 setgame.PC18492 Solutions.info Have fun playing the game. I sit there and play it all day!

Ciao, Darryl.